Marijuana on the Blockchain:  
Stability through Proof of Stake  

01.30.2018  

GanjaCoin  
(MRJA)
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Abstract

In 2012 Marijuana became a legal substance in Colorado and Washington state. This marked the start of a new industry with new growth and new opportunities. As time went on, new laws, new businesses, and jobs flooded throughout America. Slowly, state by state marijuana began to be accepted and legalized. Now more than ever, individuals are open to the legalization of marijuana with 70% of millennials supporting it. As of 2018, 10 states have legalized recreational marijuana along with 34 states having some sort of medical marijuana laws. Now by 2020, it is predicted that the new Marijuana industry will create jobs for over a quarter million of Americans. Although certain states have allowed the usage of marijuana, the federal government still counts marijuana as a category one substance making it still illegal on a federal level. The illegality, yet legality, of marijuana complexifies processes for business such as dispensaries. Dispensaries annually sit on millions of dollars in cash due to them being unable to legally store money in a bank. Hundreds of dispensaries nationwide have no ability to take credit or debit cards, leaving customers unable to pay unless they are paying in cash. Overall, things end up complicated for both the consumer and the producer. GanjaCoin strives to solve these problems through the utilization of blockchain technology. GanjaCoin allows consumers to quickly and efficiently make digital purchases at marijuana dispensaries. Those who feel safer using digital payment methods are finally acknowledged. Producers are able to save money on security and easily keep track of their revenue. Fees also disappear before they are able to appear with debit and credit cards.
GanjaCoin is not the first marijuana based cryptocurrency, but it is unique in its own way. GanjaCoin has the lowest supply out of all major marijuana cryptocurrencies. Also, although practically all the major competitors are run on proof of stake systems, GanjaCoin provides the largest rewards from staking and also allows user to own masternodes. The most unique value of GanjaCoin is the plan to eventually open a marijuana dispensary where each gram of marijuana will be backed with the value of one GanjaCoin.

Currently listed on two exchanges as of January 2018, GanjaCoin has big plans. GanjaCoin plans to continue expanding its reach to multiple other exchanges such as Cryptopia and Kucoin, eventually reaching Bittrex. Also, GanjaCoin will be focusing on creating a wallet for both Android and Apple devices so that purchases at dispensaries are closer to becoming possible. Also, to progress the possibility of these purchases, GanjaCoin will need to be accepted by dispensaries, so the team will contact dispensaries in marijuana legal states and provide the benefits of accepting GanjaCoin.

GanjaCoin strives to be the best marijuana cryptocurrency on the market delivering efficient digital storage and digital payments in the developing industry of marijuana. With a headstrong team and community, the coin is constantly developing and bettering itself. The marijuana industry needs a digital way to process transactions, and GanjaCoin is here to do just that.
Overview

On February 5th, 2017 GanjaCoin was released to the public. Its main purpose is to utilize the decentralization of the blockchain system to help Marijuana users and dispensaries alike. GanjaCoin is also meant to become the primary currency for marijuana purchases and the first to be backed by feminized seeds. In the future GanjaCoin will most likely be backed by the value of one gram. Located in Massachusetts, the team is progressively bettering the coin everyday as the marijuana industry throughout the United States continues to grow.

Unique Value Proposition

Efficient digital storage and digital payments in the developing industry of Marijuana

GanjaCoin will be able to offer storage and digital transactions for dispensaries with quick transactions and low fees. Current problems with the lack of digital storage will be remedied by GanjaCoin through persistent development and constant innovation.

Token Information

- Proof of Stake (PoS) coin
- Backed 1:1 by feminized seeds (female seed ready for planting)
- 42,000,000 coin supply
- 0.0001 MRJA fee per transaction
- Instant transaction time using InstaX
Proof of Work and Proof of Stake

When looking at coins in the cryptosphere different coins have different ways of processing transactions and “finding” coins. Originally, Proof of Work (PoW) dominated the cryptocurrency world. Bitcoin is built on a PoW system making it the most popular and original method. For many this is known as mining. By using a computers GPU (graphics processing unit), CPU and ASIC a miner confirms a transaction and earns a reward for this. These are the fees that are associated with bitcoin transactions. The miner using their GPU also “mines” through data blocks that contain code for some bitcoin. If the miner finds the code they are rewarded with the data, called a block reward. Overtime, as more blocks are mined the difficulty to mine through each block increases and the reward decreases. The process of running a GPU all day and night presents the problem of excess usage of electricity and simply is not sustainable. PoW networks are prone to becoming congested, causing fees to rise and transaction to slow.

GanjaCoin uses a Proof of Stake system to confirm transactions on the network. The conformation of the transactions are not done with hardware, the GPUs in the miners case, but rather with the already owned coins. By staking coins, the individual who is staking them earns a reward relative to the amount of coins that they are staking. They also earn coins off of the transaction fees in the network. PoS coins are considered to be more stable due to their nature where the individual staking the coins holds onto their coins. This way less coins are flooding the market constantly. In a PoW system, the miners mine the coins, and due to self interest, they sell off their coins, overall causing the market to fluctuate. Staking nurtures the network by handling transactions and stabilizing it through the retention of coins from the market.

Problems:

1. Federal Banks Can’t Take Marijuana Dispensary Cash

Federal law prohibits any banks from taking money from legal marijuana dispensaries. Marijuana is still illegal on the federal level so any banks processing money from Marijuana dispensaries are considered to be laundering money. Since banks are federal, and marijuana laws are state, vendors and owners of dispensaries are left sitting on cash unable to store it legally in digital form. This burdens owners with the task of paying tax collectors in large sums of cash and overall makes it harder to track their earnings. Not only does this burden owners, but it poses a massive security risk. Holding liquid assets is risky.
for dispensaries which means a lot of money must be spent on security to make sure the owner’s earning are safe.

2. Currently no digital way to purchase Marijuana legally

Banks are not able to store or transact any money that flows into a dispensary, so an average consumer outfitted with a debit or credit card may not simply walk into a dispensary and make a purchase. This poses a problem for consumers as some prefer to carry debit or credit cards. Whether it is because they feel safer carrying a card instead of cash, or they would rather purchase using credit, there is no solution for them. This also makes it harder for owners to keep track of their revenues and pay taxes at the end of each quarter. No digital purchases means no digital logs of purchases, unless manually inputted. Manual entry of millions of dollars can be stressful and time consuming for owners. Focusing on cash logs and keeping track of purchases can overtime deteriorate the businesses focus and detract from the customers satisfaction. Also, if marijuana becomes legal on the federal level and banks are able to process transactions, they will take a fee of 1.55-3.5% from every purchase while GanjaCoin has a set transaction fee of .0001 MRJA, which is .001% of a single GanjaCoin, for every purchase.

3. Affordable Marijuana

At times marijuana for some might be out of their budget, or they might not be satisfied with the amount of money it is taking out of their budget. The average income for an American citizen is $56,516 nationwide (not a marijuana state statistic). An ounce of Marijuana can range from $130 to $250 which can cost yearly from $3,120 to $6,000, assuming that two ounces are purchased every month. This is 6-11% of the average Americans income. Whether it be for medical or recreational purposes, this can use up a large percentage of a customers budget without their realization.

Solution:

1. Staking of GanjaCoin Helps Customers Make a Passive Income for Future Purchases

Customers who find problems with the amount of money that they are spending on marijuana can stake coins in order to earn GanjaCoin that they can use for future purchases. This is called Proof of Stake (PoS) and is similar to earning interest. An individual will put their coins into a GanjaCoin wallet on their desktop and let it stake. Based on the amount that they have staked, they will earn an amount in rewards relative to that. The
rewards come from confirming transactions and block rewards (See section “Proof of Stake and Proof of Work”). The individual can then further stake these coins and earn more or they can use what they have made to purchase marijuana at their dispensary. Simply put, the customer will be investing marijuana spendings to earn future marijuana spendings.

Once the coin supply reaches 42 million, the staking will stop as no more new coins are able to be staked, but individuals will still be able to contribute to the network through masternode sharing. They will be able to contribute a part of their income to support a masternode which process transactions, and in return earn a percentage of those transactions. This percentage will incentivize users to support the network through their contribution and patience.

2. Dispensaries can use Ganjacoin to Digitally Store Their Earnings

Instead of using traditional banks to store their money, dispensaries can use a GanjaCoin wallet to store their liquid assets. The GanjaCoin will act as a digital storage of value for these dispensaries who otherwise can’t store their cash. In the future, GanjaCoin will be developing methods for dispensaries to store these coins even more securely. GanjaCoin will also eventually develop a way for dispensary owners to change their GanjaCoin into fiat and bitcoin easily and seamlessly without having to go through coinbase or other companies. The ability to digitally store the money that they earn will make it easier for owners to focus on their business in other areas, such as customer service and product quality. With GanjaCoin being utilized by businesses, they will find it easier to keep track of their money and where it is going. They will feel safer and more confident knowing that their money is safe digitally, rather than physically. Working with GanjaCoin will also be beneficial for dispensaries during the staking stage. Any digital holdings that they have will stake and earn coins until the cap of 42 million coins is reached.

3. GanjaCoin Users can use Digital Payment to Purchase Marijuana

Once dispensaries are able to store GanjaCoin at their stores, users will be able to use it to complete their purchases. Initially, customers will send GanjaCoin payments simply by scanning a dispensary wallet QR code and transferring over their funds. The payment will immediately show up in the store wallet and the customer is on their way. There will be no change and it will completely mimic the familiar feeling of using a debit card. GanjaCoin will bridge the gap between the marijuana industry and digital transactions simply and efficiently by providing a legal way for customers to digitally pay for marijuana purchases.
Road Map

- **Release MRJA X11 Algorithm w/ Masternodes**
  - Quarter 1 2018 - DONE
  - Added Masternodes to give investors a better return on investment during the staking stage of GanjaCoin

- **Apply for Masternodes.pro**
  - Quarter 1 2018 - DONE

- **Implant New Blockchain**
  - Quarter 1 2018 - DONE

- **Test Coins and Wallets**
  - Quarter 2, 2018

- **iPhone & Android App Release**
  - Quarter 3, 2018

- **Get re-listed on NovaExchange**
  - Quarter 4, 2018

- **Complete and Fix Masternode Sharing Program**
  - Quarter 4, 2018

- **Bittrex Campaign and Listing**
  - Quarter 1, 2019

- **Open GanjaCoin Dispensary**
  - Start funding 2020 allowing investors and coin holders a stake in the dispensary
  - Acquire proper license building, selling and growing medical marijuana
  - Open doors 2022-2025 marking the opening of the first GanjaCoin dispensary
The roadmap on the previous page is the big picture plan for GanjaCoin. Throughout this time we will also be pushing our coin onto other exchanges such as KuCoin and Cryptopia. Along the line our website will be updated so it is easier to process the information on it and so that it is more aesthetically pleasing. We will also be pursuing dispensaries nationwide that need a form of digital payment. GanjaCoin will work with these dispensaries to smoothly implement payment systems so that customers and owners alike have a new way to share value.

**Current Competition**

- **HempCoin (THC)**
  - Proof of Stake system but no way to have a masternode
  - Focuses on agricultural industry along with marijuana industry
  - Focused on business to business transactions rather than consumer to business transactions
  - Max Supply: Uncapped
  - 5% staking return

- **PotCoin (POT)**
  - Proof of Stake system but no way to have a masternode
  - 1% fee for businesses
  - Max Supply: 420,000,000 POT
  - 5% staking return

- **CannaCoin (CCN)**
  - Proof of Stake system but no way to have a masternode
  - Max Supply: Uncapped
  - No plan for dispensary implementation
  - 2% staking return

- **CannabisCoin (CANN)**
  - Proof of Work system
  - Max Supply: 420,000,000 CANN

- **DopeCoin (DOPE)**
  - Proof of Stake system but no way to have a masternode
  - Max Supply: Uncapped
  - 5% staking return

For GanjaCoin, these are the five primary competitors. All of these coins, other than cannabis coin, work on PoS concepts and have staking rewards. Although all of these coins have staking rewards, the rewards for staking GanjaCoin are significantly higher at 20%. Also, in comparison to these coins, GanjaCoin is the only one to have masternodes. This allows users, even after the staking stage is done, to still earn GanjaCoin. Another unique
feature of GanjaCoin is that it is currently backed by feminized seeds. The only other coin to be backed by something of value is CannabisCoin which runs on a PoW system. All of these coins have supplies ten times greater than GanjaCoin, meaning that upon integration into the Marijuana industry, each coin will have less face value. Ganjacoin will also be offering a program to individuals in the future so that they can easily split a masternode with and get paid an equivalent of their percentage holding.

Milestones and Info

- There was no ICO for GanjaCoin
- GanjaCoin had a small premine of 75,000 coins
- Listed on MasternodeXchange
- Listed on Cryptobridge
- Had Coinmarketcap status until coinexchange began having problems
- Online website created with updates coming in the future
- Reached $0.30 since its creation in 2017

America's 2015 Marijuana Sales In Context
2015 legal marijuana sales and selected 2014 company sales in the U.S.

<table>
<thead>
<tr>
<th>Company</th>
<th>Sales 2014</th>
<th>Sales 2015</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dasani</td>
<td>$102bn</td>
<td>$3.4bn</td>
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<tr>
<td>DiGiorno</td>
<td>$975.3bn</td>
<td>$975.3bn</td>
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<tr>
<td>Girl Scout Cookies</td>
<td>$776.0m</td>
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<td>Oreo</td>
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<tr>
<td>Blue Bell</td>
<td>$570.0m</td>
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<tr>
<td>Pringles</td>
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<td>Blue Diamond</td>
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<tr>
<td>Nabisco Wheat Thins</td>
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<td>$344.8m</td>
</tr>
<tr>
<td>Twizzlers</td>
<td>$293.6m</td>
<td>$293.6m</td>
</tr>
</tbody>
</table>

*52 weeks ending Jan 2015, Oreo & Dasani fiscal year ended April & May 2015 respectively. Sources: Marijuana Business Daily’s Marijuana Business Factbook, Company Reports.
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