Ethereum eRush : PoL and Memo featured Erc-20 token.

Yasin Aktimur
yasak@gmx.com
ethereumrush.org
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Abstract

As we have seen over time, the proof of stake consensus mechanism, in other words, the idea of masternode which is based on winning prizes over some time by renting a cryptocurrency did as well as the Proof of Work consensus algorithm. But people are expected to learn too much programming and terminal knowledge to become a coin's masternode which in return reduces participation significantly. Our first solution is to help people become masternode without having technical knowledge and to allow them to do a proof of business while keeping their devices on. Our other important solution for this is to enable the sending of a text (alphanumeric characters) in the ethereum network alongside the memo, in other words, the money that already exists in cryptocurrency as eos and stellar. I will explain the importance of this feature below.

1- Memo feature.

If you have previously been a member of a cryptographic stock market, you may have noticed that a different address is created for each member, and even some stock markets create a different address for each transaction. There's a reason for this. Imagine two different members named Alice and Bob, and a bitcoin wallet from the stock exchange and one of the members send 5 bitcoins into this wallet to be loaded on their account. How will the owner of the stock market know from whom this money comes from? Alice or Bob? So he/she gives Alice and Bob separate addresses. Let's say Alice's address ends with 11a and Bob's address ends with 22b. When 5 bitcoins are sent to 11b address, the stock market knows that this money is sent by Bob. Therefore it starts to reflect Bob's 5 bitcoins on the website. However, there is a problem experienced by the stock market and that the members are not aware of it. The stock market has to transfer this money to its main wallet. Therefore it executes another transaction from Bob's address to its address, having to pay a transaction fee to the miners needlessly. It would not pose a problem if it only had two members. However, collecting the money at a single address when you execute 50.000 or 700 transactions per day would cause a serious problem.

Now let's take a look at our alternative. Let's imagine a bitcoin wallet that ending with 000 that belongs to the stock market. Let's assume that Bob also sends the bbb alphanumeric that proves he's Bob when sending money to this wallet. And when Alice sends the money to the same wallet, she adds aaa alongside the amount. Money accumulates in a single account smoothly, and the business can easily distinguish whom the payments come from, which in turn provides savings and efficiency.

In such a way, we make another profit. While, in the first scenario, the member business has to have detailed information on this topic and to know a lot of different issues such as creating a wallet from scratch to receive crypto money, in the second scenario, the person does not have to anything. This in return, is a feature that will increase the adaptation and coin demand.

2- PoL: Proof of Live ~ Consensus Details.

PoL: Proof of live consensus algorithm is a system where masternodes receive their prizes as long as they keep their devices on, and receive no prize on the contrary case. So how can devices prove to other users that they are online without centralization?

First of all, master the details of each block in the ethereum:

If we consider the block #8801692 in Ethereum, in this block title, there are many values such as

Block Height: 8801692

Timestamp : X days x hrs ago (Oct-24-2019 07:34:43 AM +UTC)

Hash : 0x064284d1dd0b1647ee49579c102cde82062ba9f488db31ac3180de5297490f29

and these values change every 15 seconds. For instance, the hash value is a value that every block should have, and since it consists of a summary of the transactions in that block, the summary of all of these transactions is ambiguous as the transactions are not combined in the next block.

You can view these details by examining the value of this block (8801692) on etherscan.

The blockhash value in this block is random, and to receive payment, miners try to find a special block summary value whose mod 5200 of the decimal equivalent of this block value is equal to 1. But why? For miners, we could have it checked if the last digit was even or odd, however, even if this hash value is a large number, the last digit is either odd or even. Thus, we would have made it possible to receive a prize every 2 blocks, but we aim to give a prize a day, that is, every 24 hours, every 86,400 seconds. If a block was produced every 2 hours in the ethereum network, we could give a reward once a day by taking the mod 12 of 24HR/2 However, we observed that a prize was distributed in 16.6 seconds and made the prize available once a day by taking 5200 mod of 86,400/16,6.

Ethereum Rush Prize distribution algorithm

In Ethererum eRush, the tokens are in the contract itself, which initially amounted to 24,092,240 EER. From this contract, 16,384 (2**14) prizes are distributed to miners every 1 day on average, but miners receive prizes based on the coin rate that they locked to the system to get it back after 3 months. In the scenario where there are only 2 miners in the system, a miner who locks 1000 Eers will receive half of the prize that miners who lock 2000 Eers get. If we make a real mathematical calculation, 16,384 awards will be divided by 3 (5.461), and miner B who staked double will receive 10.922 (5.461 * 2), while miner A takes 5461.

In the PoL consensus algorithm, the amount that should remain locked for the masternode is determined by users and it is called minimum target. If a user has locked 5,000 coins for 3 months to become a masternode, the minimum target is set to 50 and therefore the user has to lock at least 1% coin to allow other users to become masternode. In the 5000 cases, the minimum required number is 50. But if there were only 2 people in the system, the minimum target would be calculated as 1% of 5000 +50/2. So in this case, the minimum target decreases to 2,5.

The concept of more locks bring more pay creates a demand for the purchase of PoL-based cryptocurrencies, in which case people will have to collect more cryptocurrencies from the market to earn more, which reduces the supply in the market and allows the money to preserve its value.

Ethereum eRush Supply

Total supply is limited to 24,592,240 and only 500 thousand have been dug beforehand and it has been distributed fairly to the first miners. Miners in the system continue to generate coins and make gain by locking these coins.

The fact that Ethereum Rush gives 1 prize each day on average does not necessarily mean that it will give a prize each day. While it may not give a prize for 8 days, it may give 8 consecutive prizes at the end of the 8th day. But every time Eer gives a prize, a value called lastblock increases once, and when the lastblock value reaches to 7300, which is equivalent to an average of 2 years, the daily prize of 16,384 will be reduced to 8.192 or2**13.

Retrieving coins from the contract.

Coins are retrieved manually by clicking the button no.7 named getyourcoinsbackafterthreemonths in the write section of the contract's address in etherscan. Once you retrieve your coins, you will not be allowed to continue mining. Your ban will be lifted automatically after 3 months. You should not touch your coins if you would like to continue mining. You can withdraw your coins whenever you want after 3 months, however, you won't be able to continue mining if you do so.

Resources

1-) https://etherscan.io/block/8801692
2-) Hexadecimal to decimal converter: https://www.rapidtables.com/convert/number/hex-to-decimal.html