

Voting system

If we want to create a decentralized and anonymous polling system first is clearly to see that we need the blockchain technologies. Blockchain technologies are a great way to manage groups of people.

In that way, if we are in a network we can send 1 token to vote to each person. then every person who received the token can vote only one time (expending the token he gets earlier by the person doing the poll). Now we are using blockchain and her tokens as tickets to us as a vote, not as a cryptocurrency. We need a census to give the tokens, to the user we want.

To manage the correct use of the token we can save a smart contract that matches the one we give to de voters, to ensure that the person that is voting is the one that is allowed to vote.

We need it to be anonymous and more difficult to trace to protect the identity of each voter. For this we will create an account for each person who will vote that will only be used for voting. Thus, for example, the identity of the voter cannot be linked to other transactions.

The process could be described as this:

- Voter receives token.
- Voter create Ethereum account.
- Voter self-signs transaction with token and sends it to registry.
- Registry creates or finds an alias, returns address to voter.
- Voter asks alias to cast a vote.
- Voter's Ethereum account is checked.

To ensure the correct way of these process we need miners ho guarantee that double-spending vote is avoided or that the person who voted is trustless. To do that every token we generate to vote has a cost that will be paid to the miners.

We will need three types of agents:

- The organizer of the vote, in charge of creating the accounts and giving the voting tokens in relation to his census.
- The voters who are the ones who receive the accounts and the tokens that allow them to vote.
- The miners will be in charge of processing and securing the data

In fact there are already services to do the type of poll we need. Like Polys and BALLOTCHAIN (<https://polys.me/> , <https://www.reply.com/en/content/ballotchain>).