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Title: basecoin - dfocoin protocol
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Summary:

This document describes how to launch a decentralised flexible organisation (next level of decentralised autonomous organisation or dao - reference : dfohub.com) with a **dfocoin** for any new crypto currency (hereinafter referred to as **basecoin**) In such a way that the holding of dfocoin is incentivised by means of random airdrops as **airdrop gain** and selling is penalised by means of **transaction loss**, where total supply of dfocoin is maintained constant by maintaining the following formula.

Transaction Loss = Airdrop Gain

Objectives

This document describes how to launch a decentralised flexible organisation (next level of decentralised autonomous organisation or dao - reference : dfohub.com) with a **dfocoin** for any new crypto currency (hereinafter referred to as **basecoin**) with the following objectives

- ***increased adoption*** of the *basecoin*
- Formation of **initial community** for the *basecoin*

   (For example the Ampleforth is in the process of forming such a community named Amplesense (kMPL or kilo AMPL) to promote adoption of AMPL) (where AMPL is the *basecoin* and kMPL may be the *dfocoin*)

   As dfocoin will be available only for the initial adopters of any basecoin, these initial community will behave like the shareholders of the basecoin.

- ***zero cost*** participation in governance for all the existing holders of a *basecoin*. (The *dfocoin* is airdropped equally to all the initial account holders of the *basecoin* project.)
- **more democratic** and **equitable distribution** for the governing body than the *basecoin*. The basecoin may have higher percentage holdings in multiple accounts like founders account, treasury account etc which may give rise to risk of dumping from the these accounts. The dfocoin being more distributed

will mitigate this dumping risk and at the same time founders can have higher holdings in basecoin.

- **basecoin ecosystem startup funding** - *dfocoin* account holders may pool balances to fund any startups that may help increasing the adoption of the *basecoin.* All the early account holders of a basecoin can become like Seed funders for exciting projects which can increase adoption of the *basecoin*. And this doesn't need any additional investment done by the *basecoin* holders. Many of the successful startups can provide excellent return on investment for the investors who pooled up dfocoin.
- **dfocoin** account holders may vote for each of the proposals raised in the dfo based on their accumulated balance of *dfocoin* multiplied by number of days holding.
- As the *dfocoin* is non divisible asset the quantity being limited the early adopters will get clear advantage.
- **Impedance:** the proposed transaction loss will decrease the velocity of transactions happening in dfocoin and airdrop will provide incentive for the holders to continue holding.

Properties of dfocoin

dfocoin will be a crypto asset having very limited supply and **which is not divisible** can be owned by limited accounts only. For example if there are 1 million dfocoins issued the maximum distribution possible will be 1 million accounts holding 1 dfocoin each in their account. This can lead to scarcity and increasing demands thereby increasing the market valuations. (If the *basecoin* is having a supply of 1 billion the *dfocoin* supply may be limited to 1 million - 1000 early accounts at the time of launch of the dfocoin with 1000 dfocoin airdrop per account) The crypto asset proposed is to be designed in such a way that the supply is limited and the asset is **not divisible.**

And the transfers are de incentivised and holding is incentivised.

The implementation revolves around

1. **Distribuition:** Each dfocoin account will have a receive an airdrop proportionate to the total amount spend in USD on acquiring the basecoin during the first purchase in that account. Subsequent purchases are avoided if there is any sale from the account - To avoid trading accounts.(whale accounts, bot accounts etc)

account	basecoin balance	USD spent to purchase basecoin	dfocoin airdrop
account 1	10000	100	338,984
account 2	3000	50	169,492
account 3	40000	25	84,746

account 4	5000			30	101,695
account 5	60000			90	305,085
				295	
		Total dfocoin airdrop			1,000,002.00

The **multiplication factor** here in this above example is 3389.84 (Where the dfocoin airdropped to an account can be calculated as the total USD invested into the bitcoin multiplied by the multiplication factor.

Any basecoin accounts having a sale transaction will not be eligible for any further airdrop of dfocoin into the bitcoin account. This step is important to prevent any basecoin accounts engaged in trading the basecoin from acquiring any further dfocoin.

1. *dfocoin distribution cutoff* : **[optional]** There can be a cut off date for the issue of dfocoin against the basecoin investments. This can be kept like the first 1000 holding accounts or first 2500 holding accounts etc. So that early adopters are rewarded better. Otherwise it can be a cut off date or last date upto which dfocoin will be issued.
2. *dfocoin inflation* : **[optional]** To incentivise the late comers the dfocoin may decide to continue to issue ongoing dfocoin to late adopters.
3. *dfocoin halving* : **[optional]** In case there is inflation and ongoing issue of dfocoin to late adopters. The quantity of dfocoin issued can be halved by decreasing the **multiplication factor** every month by a factor of 2. This will maintain the scarcity and ensure that the supply of dfocoin does not increase significantly after few months.

2. *Voteshare:* Each dfocoin account will have a voteshare proportionate to the number of days of holding of dfocoin multiplied by total dfocoin held.

Example

	dfocoin qty	no of days holding	Total VoteValue	VoteSum	voteshare
account 1	1000	10	10000	95000	10.53
account 2	2000	20	40000	95000	42.11
account 3	500	40	20000	95000	21.05
account 4	500	10	5000	95000	26.32
	1000	20	20000	95000	
			95000		
				Total Voteshare	100.00

During a voting transaction there will not be any loss. Number of Votes for a *dfocoin* account will be directly proportional to voteshare

3. ***Transaction Loss*** : Each transaction from one account to another is de incentivised so that dfo account holders are not incentivised to transact. For each transaction there will be a loss of 10% value from the transacted amount. (For example An account transfer of 500 from an account to another existing account or a new account will result in loss of 50 dfocoin during the transfer)

4. ***Airdrop gain*** :The loss happening during the transaction is airdropped randomly into existing holding accounts. The chance of win of an air dropped coin is directly proportional to the amount of holding multiplied with the time of holding of dfocoin. So an account holding 100 units for 10 days and that holding 10 unit for 100 days. Both will have an equal chance to win the airdrop. For example if the transaction loss during a transfer of 500 is 50 dfocoin then this 50 dfocoins are airdropped into 50 different accounts randomly based on their ***voteshare.*** Probability of getting a coin airdropped will be directly proportional to the *voteshare*.

5. ***Baseminimum :*** Base minimum is the minimum USD spend to acquire the basecoin in an account. It can be kept at 100 USD. Base minimum can be even kept at zero to include everyone. Base minimum can be kept at a higher level to promote a minimum investment into the basecoin

6. The total quantity lost in transaction = the total quantity gained as airdrop in other accounts.

Tx Loss = Airdrop Gain

7. **Non divisibility of a dfocoin** - (Reference implementation - drcglobal.org) A dfocoin is not a divisible coin. So if there are 1 million dfocoins the maximum accounts holding dfocoins will be 1 million accounts 1 coin each. This will generate scarcity in future. Scarcity will increase valuations.

Generation of dfocoin

The dfocoin may be generated using any existing platform like aragon or dfohub (dfohub seems to be more futuristic and more flexible) or it may be generated as a simple contract and airdropped to all the relevant accounts manually.

The feature for non divisibiity of a coin can be adapted from drcglobal.org

Similar method is adapted by amplesense community in floating kMPL as the dao for AMPL.

Reference Implementations

Reference implementations:

1. www.ampleforth.org
2. https://amplesense.io/
3. https://drcglobal.org/
4. www.dfohub.com