TOKENOMICS OF THE NOETHER PROTOCOL

An overview

The NOETH Token is distributed according to the computing power lent by its users. Hence one ot the first problems is to measure how much computing power each user provides. For this we use the so called metric functions for computing problems. For each problem it is possible to define a function M that quantifies performance of a computer for solving it. We will determine metrics for the most commons problems in parallel computing, and taking an average of that many metrics we will assign an unique metric for each user.

The token is distributed in epochs. Each epoch will have a fixed duration T that we will be determined in accordance to the technical details of the implementation. For each epoch we distribute K tokens. The number K is not constant, but a function $K(N, T)$ where N is the quantity of users participating in the network in the current epoch and T is the epoch itself. Now suppose we have N users in the network indexed by a number $i \in \{1, \dots, N\}$. Each user i has a metric number M_i and a number T_i that is the fraction of the time T that the user lent its computing power.

Now the number of tokens K_i that the user i receives is defined to be

$$K_i = \frac{M_i T_i}{\sum_{j=1}^{N} M_j T_j} pK, \qquad \text{with } p \in (0, 1).$$

In this way we guarantee $pK = \sum_{i=1}^{N} K_i$. The remaining $(1 - p)K$ tokens are going for the developers and the universities.