



Introduction

Malcolm Lerider

NEO Senior R&D Manager

M.Sc Industrial Engineering and Management
M.Sc Computer Science and Engineering

Skills:

Distributed Software Development
R&D Management
Algorithms, simulations, modelling
Java software engineering



Clarification on NEO, GAS and Consensus Nodes



Common questions

What are NEO and GAS used for? Why two tokens?

What is a consensus node?

How do I become one?

What benefits are there to becoming a consensus node?



What NEO is NOT

NEO is **NOT** "an altcoin"

NEO is **NOT** a cryptocurrency

NEO is **NOT only** a platform for dApps and SC



NEO is Smart Economy

A future with efficient digitized economy, where the boundary between real assets and digitized assets are removed.

NEO's goal is to empower our current economy, and NOT replacing it. We want to work TOGETHER with current economy, and NOT against it.

We aim to remove obstacles and enable mass adoption. Supporting multiple programming languages is part of it (C#, Java, Python) is an obvious part of it, but it's more than that.



NEO and GAS

NEO has two main purposes:

1. Slowly generate new GAS (until cap reached)
2. Enforce network integrity
 - a) Vote for consensus nodes
 - b) Ensure gas circulation

GAS has one main purpose:

1. Utility token for service fees on the NEO blockchain.

GAS circulation:

1. All system fees are recycled and distributed proportionally to all NEO.
2. If transaction fee is charged, then that GAS is distributed only among consensus nodes.

Why two tokens?

Separation of concerns.

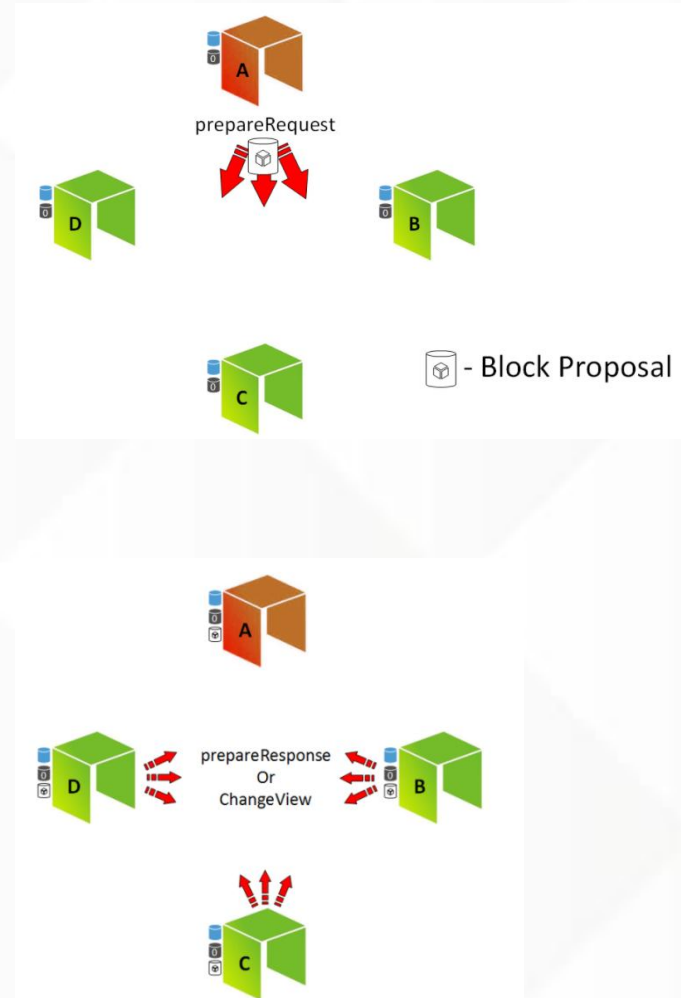
Consensus node

Consensus nodes are the nodes that will reach consensus on next block.

In NEO, there is no competition to create the next block (mining, PoW).

There is also no betting or staking to choose the next block (PoS).

Instead, consensus nodes are voted in as representatives to choose the next block.





How to become a consensus node?

How do I become a consensus node so that I can get all the transaction fees?!?!?

The number of consensus nodes is likely to be small enough that it's not reasonable for the average NEO holder to expect to become one.

The reason to arrange it like this is to align with the NEO vision of smart economy and to separate concerns.

Consensus nodes are not motivated by economic gain, 1

NEO get extra gas from registering assets and deployment of Smart Contracts, and not from transaction fees. Thus, it is in the interest of NEO holders that many new assets are being registered on the blockchain.

Consensus nodes can set a transaction fee to be distributed among them. This is against NEO holders interest.

Consensus nodes will thus keep transaction fees at zero or close to zero, otherwise they will get voted out.

Consensus nodes are not motivated by economic gain, 2

Because NEO holders will force transaction costs to be kept close to zero, there is no economic incentive to become a consensus node.

Setting higher transaction fees will lead to other consensus nodes being voted in instead. Transaction fees thus be kept as low as possible.

Thus, the only incentive to become a consensus node is to uphold the integrity of the network. This is a separation of concerns unique to NEO.



Summary

NEO is used to uphold network integrity

GAS is used for utility

NEO holders have incentives to keep transaction fees at zero or close to zero, and instead focus on getting more users to join the blockchain.

Consensus nodes have incentives to uphold the integrity of the network.

From user perspective, the blockchain incentives are very transparent and they can be certain that transaction fees will always be kept as low as they possibly can be.

Fees are meant to be collected from the individuals and companies that want to provide a service on the NEO blockchain. Fees are not meant to be collected from end users. This can in turn open up for new business models.



Questions