

# Dimension(EON)Project Planetary Landing (Phase 3)



## In-Depth Analysis of ConsensusX — Inside of Dimension C.H.A.O.S. Core Modules (Part 1)

### *An Explanaion of the Issue*

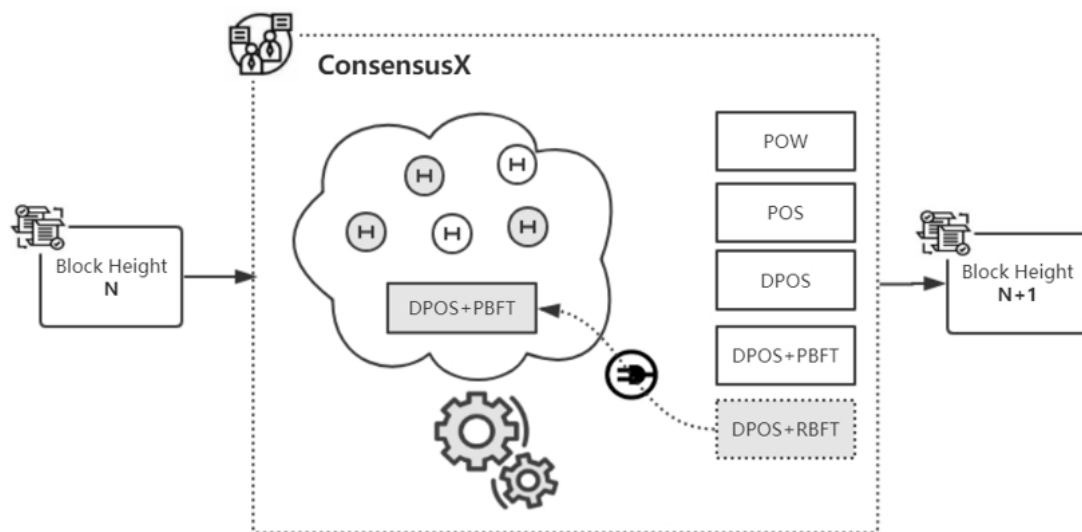
In the evolution of the blockchain diversified application scenario, the single-featured consensus algorithm cannot fully support the various stages of the commercial application scenario. Especially in the process of designing the new generation of blockchain consensus mechanism, it is more necessary to combine the demands of the actual application scenarios, and choose the decentralized, low-energy, safe, and efficient consensus algorithm.

It not only effectively improves the operational efficiency of the whole blockchain net, but also supports a variety of hybrid consensus algorithms that are pluggable and compatible, and even supports blockchain networks to enable developers to customize the consensus algorithm.

### *Mechanism Overview*

When a consensus algorithm has to be changed during blockchain operation, in order to adopt to different business scenarios the ConsensusX can immediately switch the original algorithm into others.

In the case that DPoS was chosen, the Dynamic Node mechanism could also help with the node's quantity adjustment. This fast and easy pluggability greatly reduces the risk of false algorithm selection in the early stage, providing an efficient, flexible and low-cost blockchain solution for enterprises.



## ***Consensus Loading Mechanism***

ConsensusX prefabricated two types of consensus loading mechanisms:

**Scenario 1:** For prefabricated consensus algorithms, such as PoW, PoS, DPoS, etc., when the proposal is voted through, the main-net consensus algorithm is switched at the specified block height. The node smoothly produces the block under the new consensus algorithm, and the nodes of the whole network synchronously update the data;

**Scenario 2:** If the node does not have a prefabricated consensus algorithm, some of the producer nodes in the whole-net run out in turn, and the nodes on the offline line load the new algorithm in batches until all the nodes in the whole

network are loaded with a new consensus algorithm. The offline node loads the new algorithm in batches until all nodes on the entire network are loaded with a new consensus algorithm.

When the set block height is reached, the node that has loaded the new consensus algorithm is synchronously switched to the new consensus algorithm to participate in the whole network block production.

The node that has not completed the loading of the new consensus algorithm automatically attempts to load again offline. Before the new consensus algorithm is successfully loaded, it does not participate in the block production. Eventually, nodes that are not effectively upgrading the new algorithm will be marked as failed nodes and will not be allowed to participate in the block production.

## **Coming Up:**

In-Depth Analysis of ConsensusX — Inside of Dimension C.H.A.O.S. Core Modules (Part 2)

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