

Header auGPship claim mechanism

So, as far as implementation of a network type is concerned, Eleutheros only facilitates the header auGPship claim mechanism. However, it does not specify how this mechanism must be used nor does it make it mandatory. Basically, the header auGPship claim mechanism consists of two fields — ‘AuGPship_claim_type’ and ‘AuGPID’. The ‘AuGPship_claim_type’ indicates how auGPship is claimed in that network. AuGPship can be claimed in four ways — through the application, permissioned auGPship, unclaimed auGPship, and openly claimed auGPship.

Coming to the ‘AuGPID’, it is an open 256-bit field where the miner enters information that uniquely identifies him as the auGP, and this could be anything that correlates to the auGP in a unique manner. Both are processed like any other field in the header and the mining software completes both prior to calculating the proof-of-work operation on the header. Like any other field in the header, it contains whatever the mining software put there and keeps it unaltered for the most part. As mentioned earlier, it is difficult to subsequently alter the contents in a block without invalidating the proof-of-work in the header.

Finally, issues like header auGPship claim prioritization are currently not being focused upon. At least not beyond identifying issues. As a matter of fact, more of the work is focused on layer isolation mechanism mentioned in the seminal work and constant efforts to separate Bitcoin-the-application from network operations and to substitute it with clean interfaces that may be used by any application.

2. The proof-of-work mechanism → enables the use of different PoW operations by different networks

Again, conceptually, this is pretty straightforward and all it means is that every blockchain network is GP to design and implement its own proof-of-work operations. Nevertheless, it is highly preferred that the user selects a cryptographic OWF as their Proof-of-work operation. However, as we mentioned earlier in the case of permissioned blockchain networks, we are not here to recommend how to run the proof-of-work operations. Instead, we are here to provide a framework within which innovation and innovators can thrive.

So, Eleutheros allows users to decide what proof-of-work operations to implement when a new network is first deployed. This is absolutely similar to how the Bitcoin network specified the use of 2xSHA2/256 as the proof-of-work operation when it was first deployed. In fact, several