Appendix K: DIDO Consensus

Return to Reference Architecture (RA) or Return to Appendices

Consensus Algorithms are essential in establishing confidence in a DIDO. Consensus helps overcome the Two Generals Problem and the Byzantine Generals problem. Two Generals' Problem is about establishing trust between the endpoints to ensure the data has not been tampered with. This is usually accomplished by encrypting the data flows between the two generals where each has a key to access the data.

The Byzantine Generals problem ensures that everyone gets the same updates (i.e., transactions) and that the transactions are verified. This is generally accomplished by obtaining Consensus among all the generals about any decision (i.e., transaction). There are currently 30+ Consensus mechanisms in use within the DIDO communities (i.e., Blockchain, Distributed Ledger, Directed Acyclical Graphs, etc). See: Webpage: SAINI.

Thus there are various types of consensus algorithms in blockchain prospect, some of them are explained below[1)]

☐ [char]New Section -- review
☒ [char][✓ char, 2021-11-09]~~change the list above to nspages~~
☐ [char] Change the subsection page names to K.1, K.2, etc. similar to App F

1)
Coinjoker, Consensus Algorithms in Blockchain, Accessed: 9 July 2021, https://www.cryptoexchangescript.com/blockchain-consensus-algorithms