Abstract

ANONYMITY AND TRACEABILITY OF DIGITAL PROPERTY TRANSACTIONS ON A DISTRIBUTED TRANSACTION CONSENSUS NETWORK

The present disclosure concerns methods and systems for increasing anonymity and traceability of a digital property management system that manages digital property transactions on a distributed transaction consensus network, using cryptographic techniques to process transactions. The digital property management system comprises a sender's digital property manager and a recipient's digital property manager. The sender's digital property manager further comprises a sender's digital property management module and a sender's transaction node and the recipient's digital property manager further comprises a recipient's digital property management module and a recipient's transaction node. To increase anonymity of a remittance transaction between a sender and a recipient, sender's digital property management module is not allowed to access a recipient's virtual identification. Thus, recipient's digital property management module generates a token to temporarily replace a recipient's virtual identification. To increase anonymity, an encrypted label is generated for each sub-transaction to identify sub-transactions and their sequence in the same remittance set.

(FIG. 8)