

ABSTRACT

COMPUTER NETWORK SYSTEMS ADMINISTERING CRYPTOGRAPHICALLY-SECURED, TOKEN-BASED SUBSTITUTION MANAGEMENT AND METHODS OF USE THEREOF

A present disclosure provides an exemplary system that includes at least: a distributed blockchain environment, including: a plurality of externally owned presence (EOP) member nodes associated with a plurality of distinct entities, a cryptographically-secured distributed ledger; a plurality of electronic wallets (e-Wallets), configured to hold records of distributed ledger collateral (DLC) tokens; a plurality of self-contained self-executing software containers (SESCs), including: first-type SESC, second-type SESC, and third-type SESC; where the DLC tokens are used by the distributed blockchain environment; where the first-type SESC, the second-type SESC, and the third-type SESC are distinct SESC; where each DLC token include at least one unique entity-identifying cryptographic hash; where, for each respective transaction associated with a respective EOP member node, a respective computer invokes the first-type SESC and the third-type SESC to cryptographically administer each respective transaction within the distributed blockchain environment.

(Figure 1)