WHAT IS CLAIMED IS:

1. A digital asset transaction and management system, for use in a networked computer environment, comprising:

a user information system, comprising a user identity system configured to verify and/or operate on a wallet database in response to machine instructions received by the user information system, wherein the user identity system comprises a database of addresses associated with each user of a plurality of users, and wherein the wallet database comprises records of wallet addresses and token holdings;

a transaction machine instructions generator, configured to generate machine instructions of blockchain transactions for eventual execution on a blockchain system;

a signing module that generates system-signed messages digitally signed with at least one system digital signature associated with the digital asset transaction and management system from input machine instructions;

a blockchain communications system configured to receive system-signed messages from the signing module and inject those system-signed messages into the blockchain system; and

a transaction mediating system that receives user input comprising a transaction data structure representing a first blockchain transaction and, in response to received user input, outputs a first set of generated machine instructions representing at least a part of the first blockchain transaction for eventual execution on the blockchain system to one or more of (1) the user information system, (2) the transaction machine instructions generator, (3) the signing module, and/or (4) the blockchain communications system;

wherein the transaction machine instructions generator is configured to send the first set of generated machine instructions to at least one of (1) the transaction mediating system and/or (2) the signing module, and

wherein the signing module is configured to generate the system-signed messages by signing (a) machine instructions of blockchain transactions generated by the transaction machine instructions generator, or (b) user-signed machine instructions of blockchain transactions received from the transaction mediating system.

2. The digital asset transaction and management system of claim 1, wherein the transaction data structure represents a desired blockchain transaction or user-signed machine instructions of the desired blockchain transaction.

3. The digital asset transaction and management system of claim 1, wherein the user information system further comprises a user financials system comprising a data structure including user financial information, and wherein the user financials system operates on user financial information in response to machine instructions received from the transaction mediating system.

4. The digital asset transaction and management system of claim 3, wherein the user financial information comprises one or more of account contents, user demographics, user reputation, and/or user identity as represented in the transaction mediating system.

5. The digital asset transaction and management system of claim 1, wherein the transaction machine instructions generator further comprises a smart contract program code generator, and wherein machine instructions of a transaction for execution on the blockchain system include program code defining a smart contract comprising codified rules governing token issuance, ownership and transactions.

6. The digital asset transaction and management system of claim 1, wherein the machine instructions of blockchain transactions generated by the transaction machine instructions generator are cryptographically-signed, and the signing module is further configured to sign the cryptographically-signed machine instructions of the blockchain transactions to form multiplicatively signed machine instructions of the blockchain transactions.