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(57) Abstract :

A decentralized root-of-trust framework (100) for heterogeneous networks, comprising a plurality of nodes (102-1,102-2....102-N) interconnected to form a network, where each node having a local root-of-trust storing a private key (104) and other sensitive information (106); the framework enabling nodes to authenticate each other and to exchange data and transactions securely using cryptographic protocols; and the nodes in the network are arranged in a hierarchy, with higher-level nodes having the authority to authenticate and authorize lower-level nodes. Each node in the network verifies the identity and root-of-trust of other nodes in the network using its own local copy of a trusted third party's public key, which is stored in its root-of-trust.

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