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(54) **Title:** SYSTEMS AND METHODS FOR BLOCKCHAIN-ENABLED END-TO-END ENCRYPTION

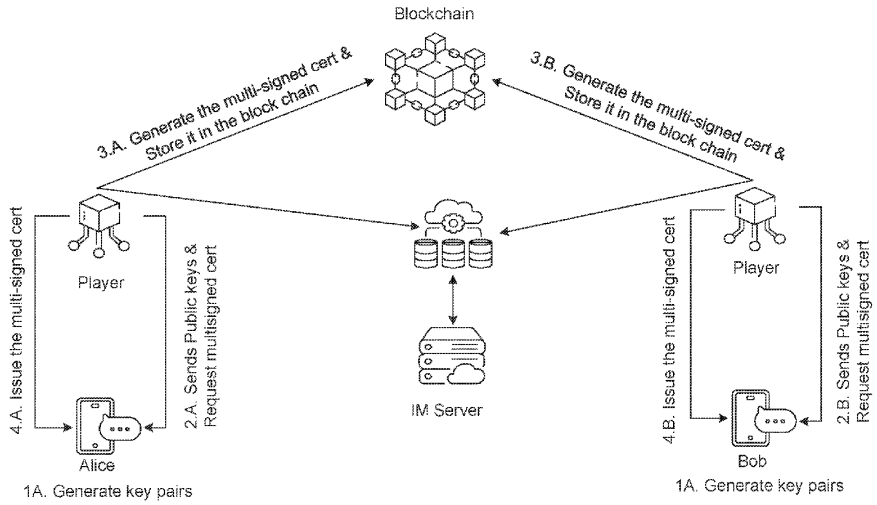


FIG. 2

(57) **Abstract:** A system is provided to leverage blockchain for a Multi-Signed Certificate-To- Identity (MSC-To-IT) system using a distributed approach to allow end users to have greater control over their digital identities and cryptographic keys. The system can manage cryptographic keys in a distributed network. The system can include a plurality of nodes configured to participate in a blockchain network. The system can include a key generation module, operable on at least one of the nodes, to distribute generation of cryptographic keys using a threshold scheme, where the cryptographic keys can include a public key and a private key share for each participating node.

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