

SYSTEM AND METHOD FOR DECENTRALIZED-IDENTIFIER CREATION

CROSS REFERENCE TO RELATED APPLICATIONS

[1] This application claims priority to and benefits of International Application No. PCT/CN2019/095299, filed with the [China National Intellectual Property Administration \(CNIPA\) State Intellectual Property Office \(SIPO\) of the People's Republic of China](#) on July 9, 2019, ~~and which claims priority to and benefits of~~ International Application No. PCT/CN2019/094396, filed with the ~~State Intellectual Property Office (SIPO) of the People's Republic of China~~ [CNIPA](#) on July 2, 2019. [International Application No. PCT/CN2019/095299 claims priority to and benefits of International Application No. PCT/CN2019/094396.](#) The entire contents of the above-identified applications are incorporated herein by reference.

TECHNICAL FIELD

[2] This application generally relates to methods and devices for managing decentralized identifiers based on blockchain technology.

BACKGROUND

[3] Traditional identity management systems are based on centralized authorities such as corporate directory services, certificate authorities, or domain name registries. Each of the centralized authorities may serve as a root of trust that provides credibility to the identity it endorses. For such systems, data associated with the identities is often stored in centralized databases, if not traditional information storage media. The maintenance of identity of each person or entity is under the control of the centralized authorities. Given its nature, traditional identity management systems are subject to security risks suffered by each of the centralized authorities and provide inefficient mechanisms for the aggregation of identities or credentials provided by different centralized authorities. In such systems, individual entities or identity owners are often neither free to choose the root of trust nor in control over their own identities or credentials. Authentication and verification of their identities often prove to be inefficient.

[4] Blockchain technology provides an opportunity to establish a trustworthy decentralized system that does not require trust in each member of the system. Blockchain provides data storage in a decentralized fashion by keeping the data in a series of data blocks having precedence relationship between each other. The chain of blocks is maintained and updated by a network of blockchain nodes, which are also responsible for validating data