

BLOCKCHAIN-BASED TRUSTABLE GUARANTEES

TECHNICAL FIELD

[0001] This specification relates to providing trustable guarantees based on blockchain technology.

BACKGROUND

[0002] Distributed ledger systems (DLSs), which can also be referred to as consensus networks, and/or blockchain networks, enable participating entities to securely, and immutably store data. DLSs are commonly referred to as blockchain networks without referencing any particular user case. Examples of types of blockchain networks can include public blockchain networks, private blockchain networks, and consortium blockchain networks. A consortium blockchain network is provided for a select group of entities, which control the consensus process, and includes an access control layer.

[0003] Digital networks have enabled people around the world to find information and interact with each other conveniently and efficiently. For example, social media platforms allow people to easily share messages, photos, and videos with friends and colleagues. Online shopping web sites allow consumers to easily find information on a variety of products and send payments electronically to purchase products from businesses all over the world. News web sites provide users with up-to-date information about events happening around the world. Media platforms provide a large collection of music and movies for users to download or stream online. Users can use various kinds of financial services online and international transactions can be more easily made. Ride hailing platforms allow riders to easily find and pay for transportation using mobile phones. As more people are connected to the Internet and more transactions are conducted digitally, the number of fraudulent online activities and disputes between parties also increase.

[0004] Traditional secure messaging network such as SWIFT normally supports peer to peer messages. The syntax of the messages is designed for the two parties involved to ensure data security and privacy. However, due to different international technical or financial regulations, messages can pass through multiple nodes before reaching their final destination, making them time-consuming, costly and lacking transparency. When more than two parties