

## **ABSTRACT**

A blockchain-based multi-node authentication method capable of improving the security and convenience of user (or user terminal) authentication is provided. The blockchain-based multi-node authentication method includes: receiving an authentication preparation request from a first user; generating a temporary channel, in which the authentication of a first user terminal of the first user is to be performed, and a channel key for identifying the temporary channel in response to the authentication preparation request, the temporary channel including multiple nodes respectively corresponding to multiple second user terminals, which are to be involved in the authentication of the first user terminal; collectively transmitting the channel key to the nodes and distributedly transmitting authentication comparison data, which is to be used in the authentication of the first user terminal, among the nodes; receiving an authentication request, which includes the channel key and authentication target data regarding the first user terminal, from the first user terminal; and proceeding with the authentication of the first user terminal in response to receiving the authentication request, the authentication of the first user terminal including first and second authentication processes.

Figure 3 to accompany Abstract