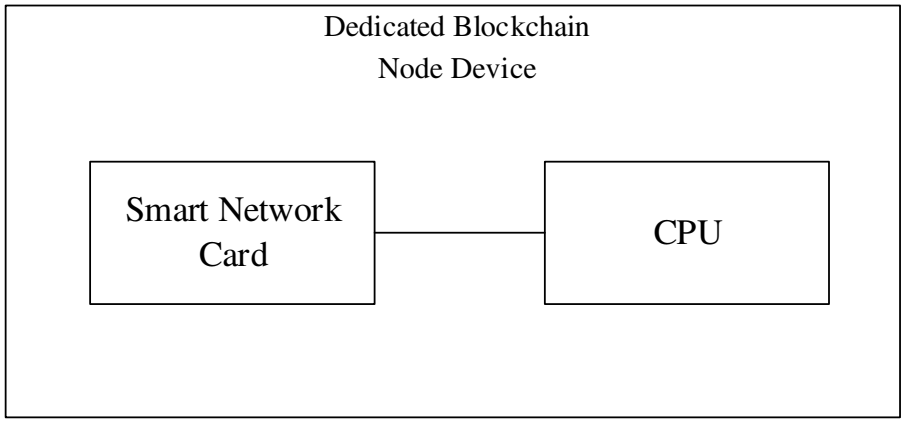
Dedicated Blockchain
Node Device
Smart Network Card
CPU

FIG. 1

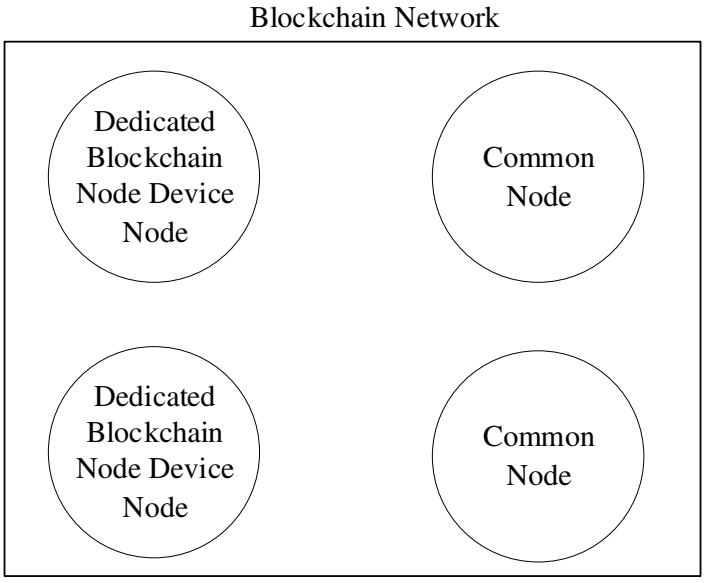
Blockchain Network
Dedicated Blockchain Node Device Node
Common Node
Dedicated Blockchain Node Device Node
Common Node

FIG. 2

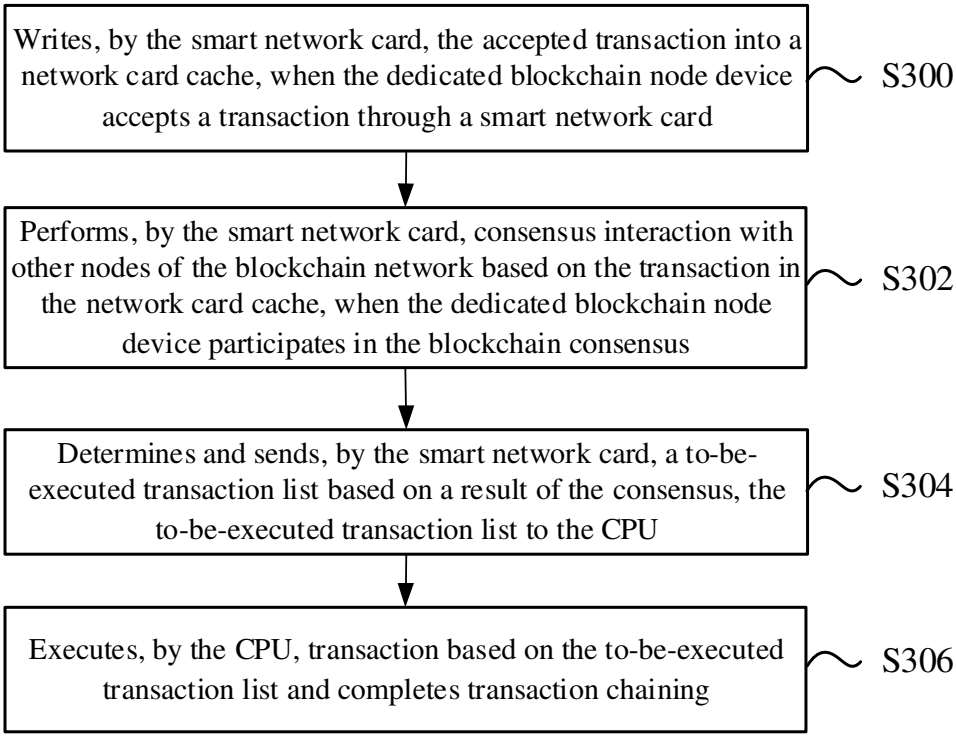
Writes, by the smart network card, the accepted transaction into a network card cache, when the dedicated blockchain node device accepts a transaction through a smart network card
S300
Performs, by the smart network card, consensus interaction with other nodes of the blockchain network based on the transaction in the network card cache, when the dedicated blockchain node device participates in the blockchain consensus
S302
Determines and sends, by the smart network card, a to-be-executed transaction list based on a result of the consensus, the to-be-executed transaction list to the CPU
S304
Executes, by the CPU, transaction based on the to-be-executed transaction list and completes transaction chaining
S306

FIG. 3

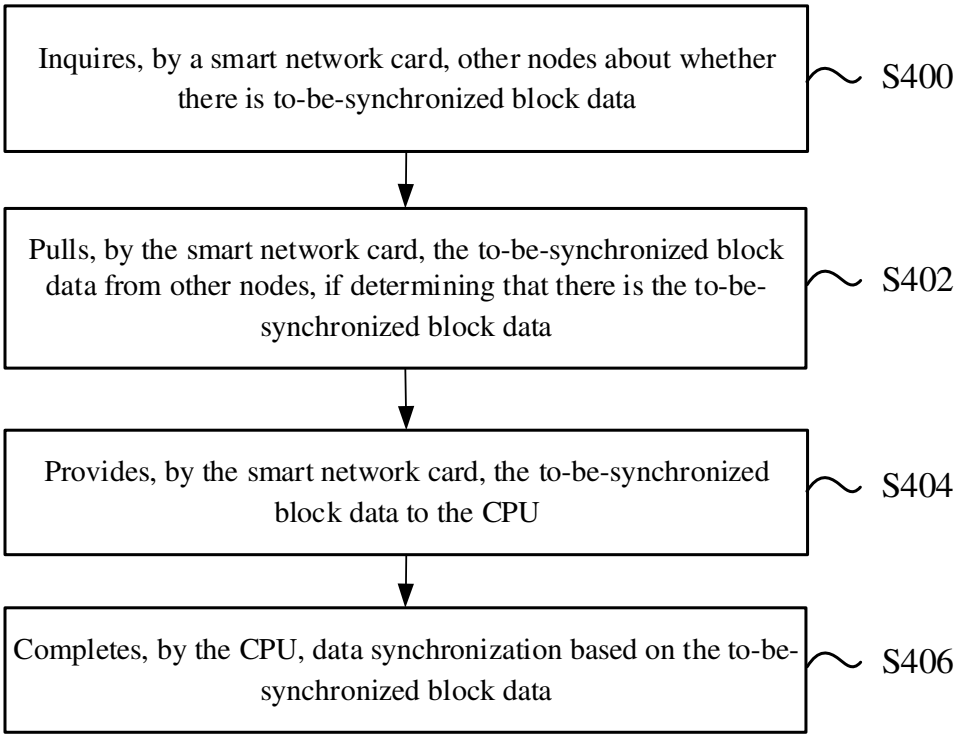
Inquires, by a smart network card, other nodes about whether there is to-be-synchronized block data
S400
Pulls, by the smart network card, the to-be-synchronized block data from other nodes, if determining that there is the to-be-synchronized block data
S402
Provides, by the smart network card, the to-be-synchronized block data to the CPU
S404
Completes, by the CPU, data synchronization based on the to-be-synchronized block data
S406

FIG. 4

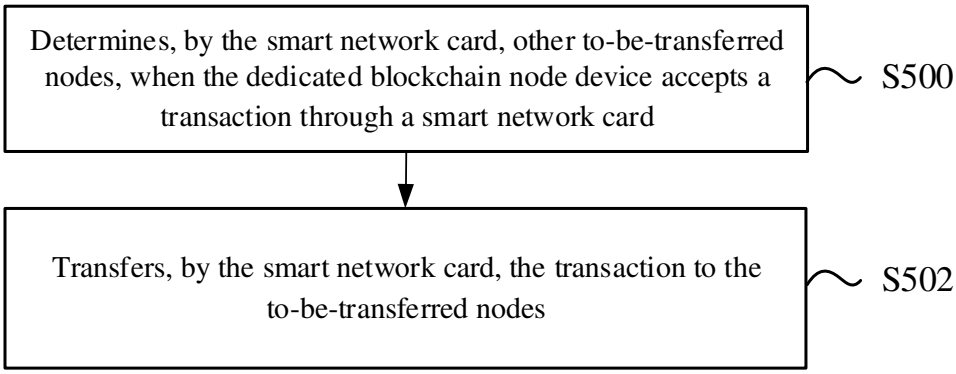

FIG. 5

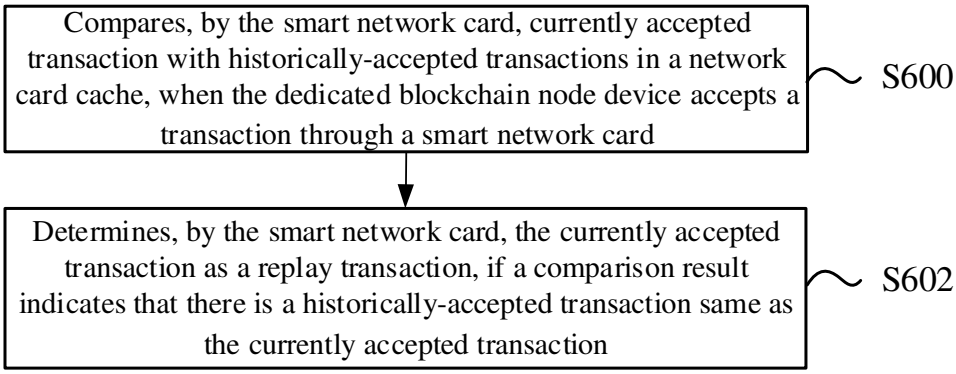

FIG. 6

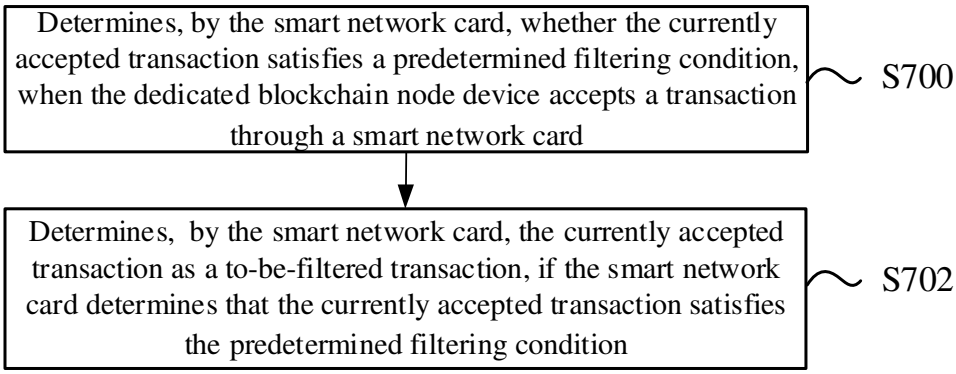

FIG. 7

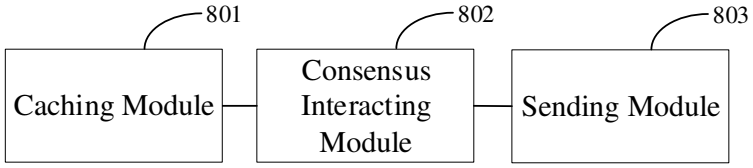

FIG. 8

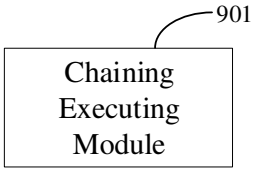

FIG. 9

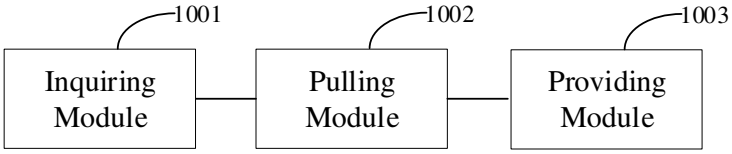

FIG. 10

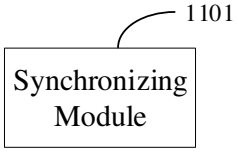

FIG. 11

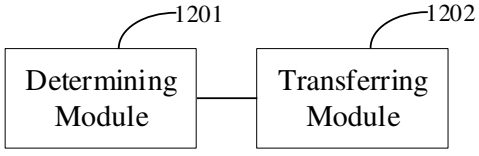

FIG. 12

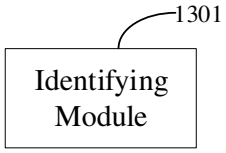

FIG. 13

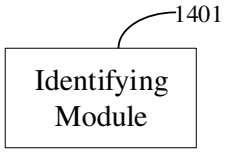

FIG. 14

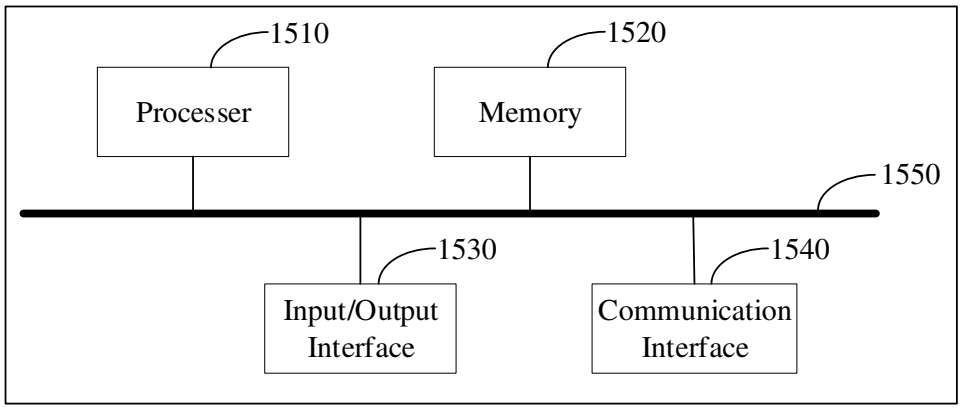

FIG. 15