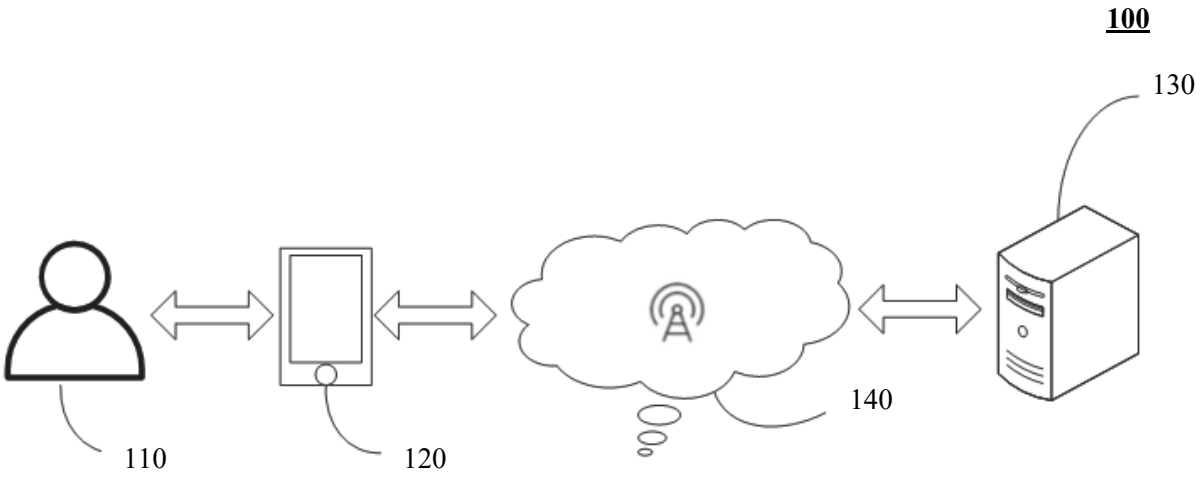
100
130
110
120
140

FIG. 1

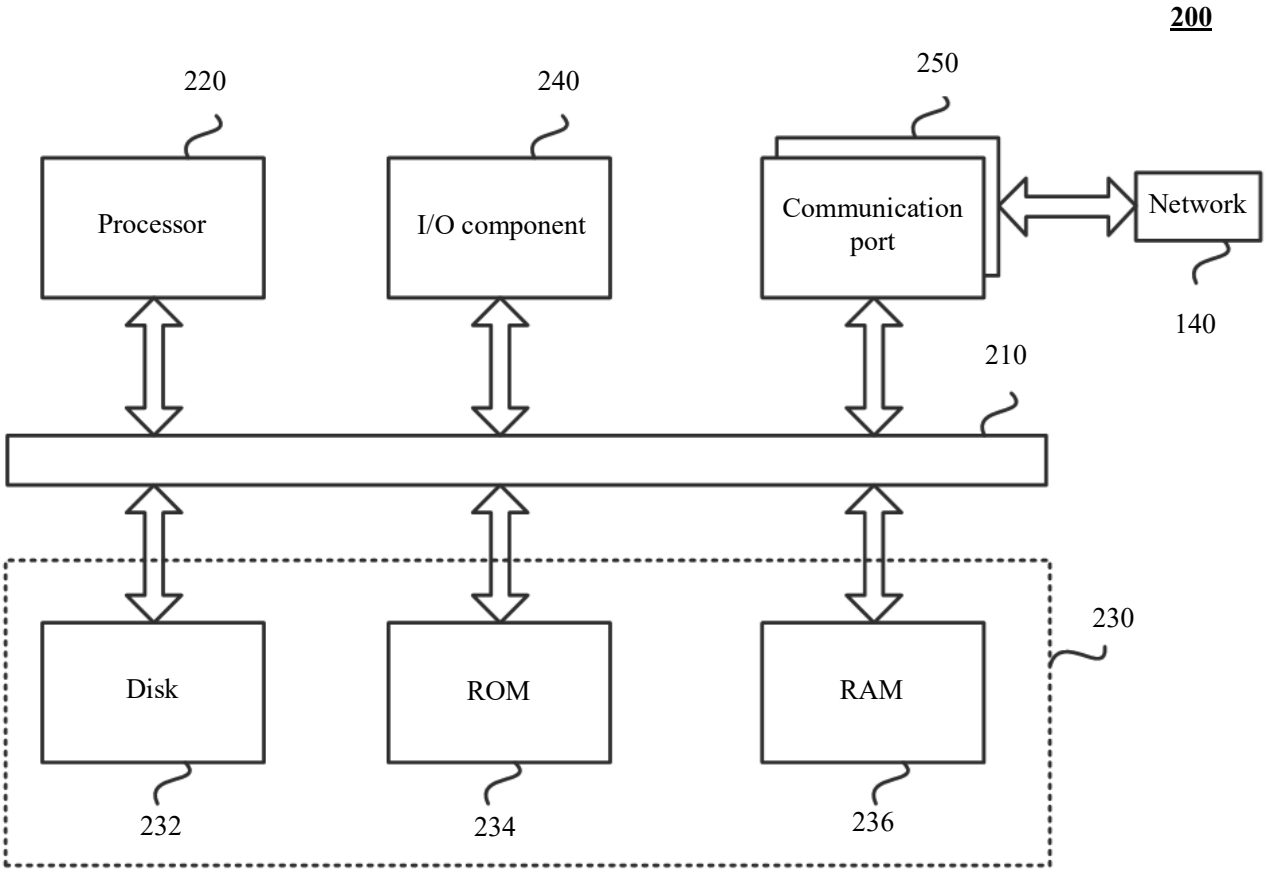
200
220
240
250
Processor
I/O component
Communication port
Network
140
210
230
Disk
ROM
RAM
232
234
236

FIG. 2

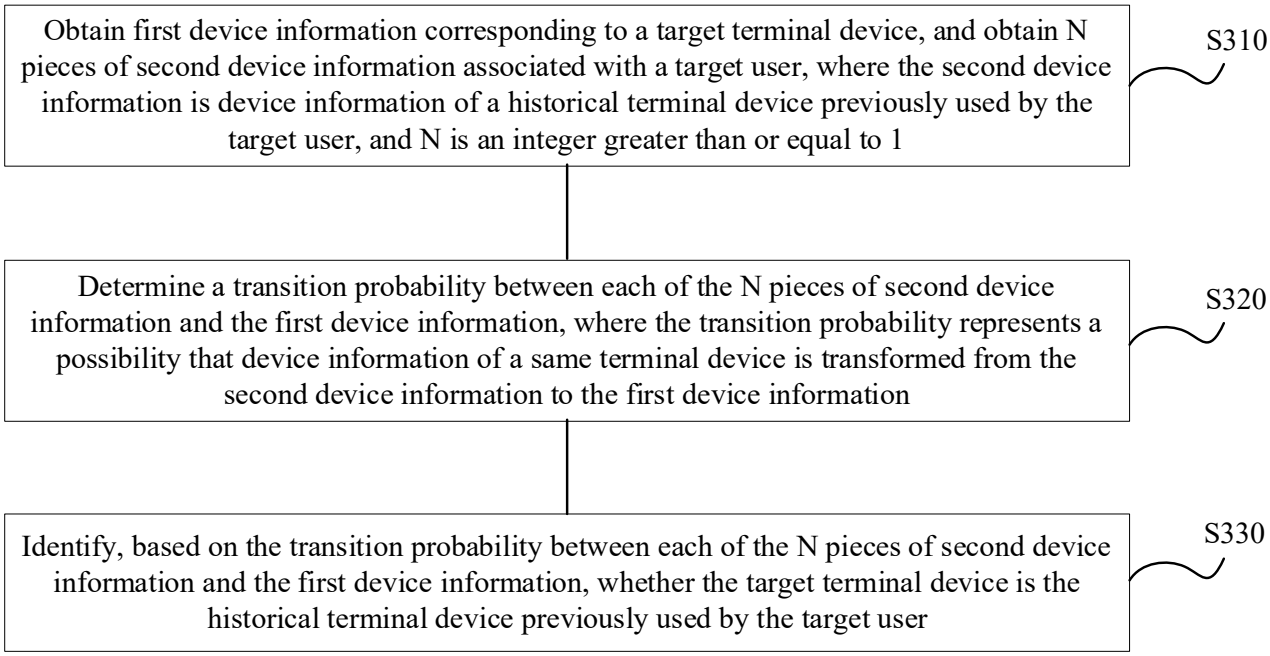
Obtain first device information corresponding to a target terminal device, and obtain N pieces of second device information associated with a target user, where the second device information is device information of a historical terminal device previously used by the target user, and N is an integer greater than or equal to 1
S310
Determine a transition probability between each of the N pieces of second device information and the first device information, where the transition probability represents a possibility that device information of a same terminal device is transformed from the second device information to the first device information
S320
Identify, based on the transition probability between each of the N pieces of second device information and the first device information, whether the target terminal device is the historical terminal device previously used by the target user
S330

FIG. 3

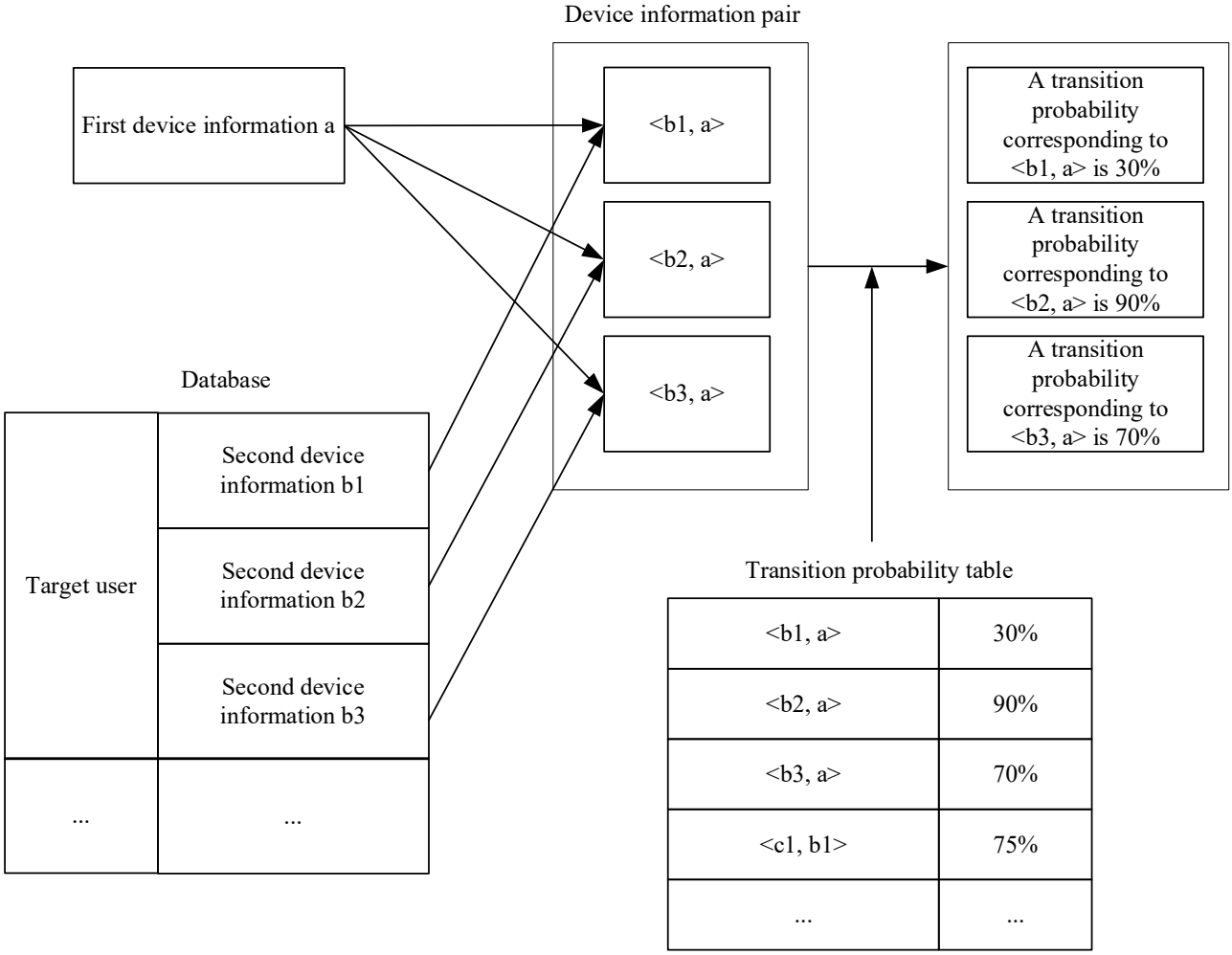
Device information pair
First device information a
<b1, a>
<b2, a>
<b3, a>
A transition probability corresponding to <b1, a> is 30%
A transition probability corresponding to <b2, a> is 90%
A transition probability corresponding to <b3, a> is 70%
Database
Target user
Second device information b1
Second device information b2
Second device information b3
...
...
Transition probability table
<b1, a>
30%
<b2, a>
90%
<b3, a>
70%
<c1, b1>
75%
...
...

FIG. 4

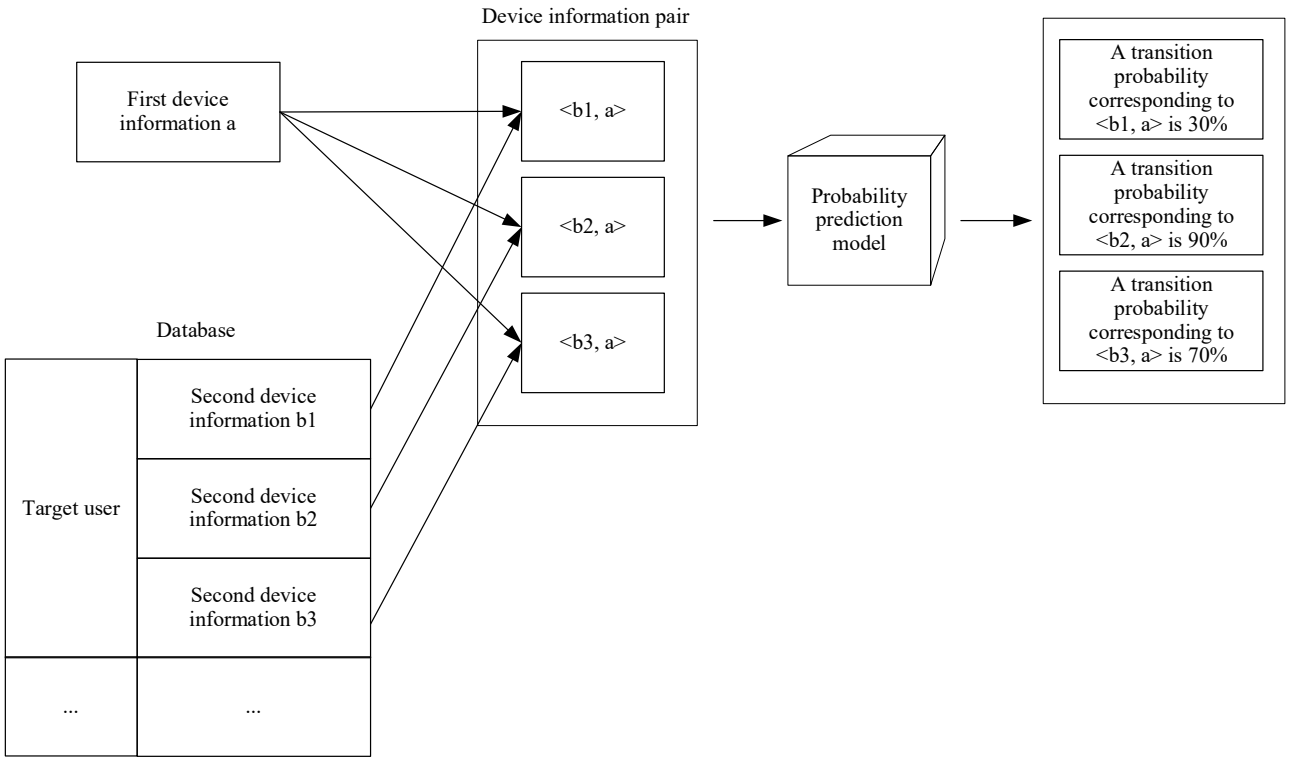
Device information pair
First device information a
<b1, a>
<b2, a>
<b3, a>
Probability prediction model
A transition probability corresponding to <b1, a> is 30%
A transition probability corresponding to <b2, a> is 90%
A transition probability corresponding to <b3, a> is 70%
Database
Target user
Second device information b1
Second device information b2
Second device information b3
...
...

FIG. 5