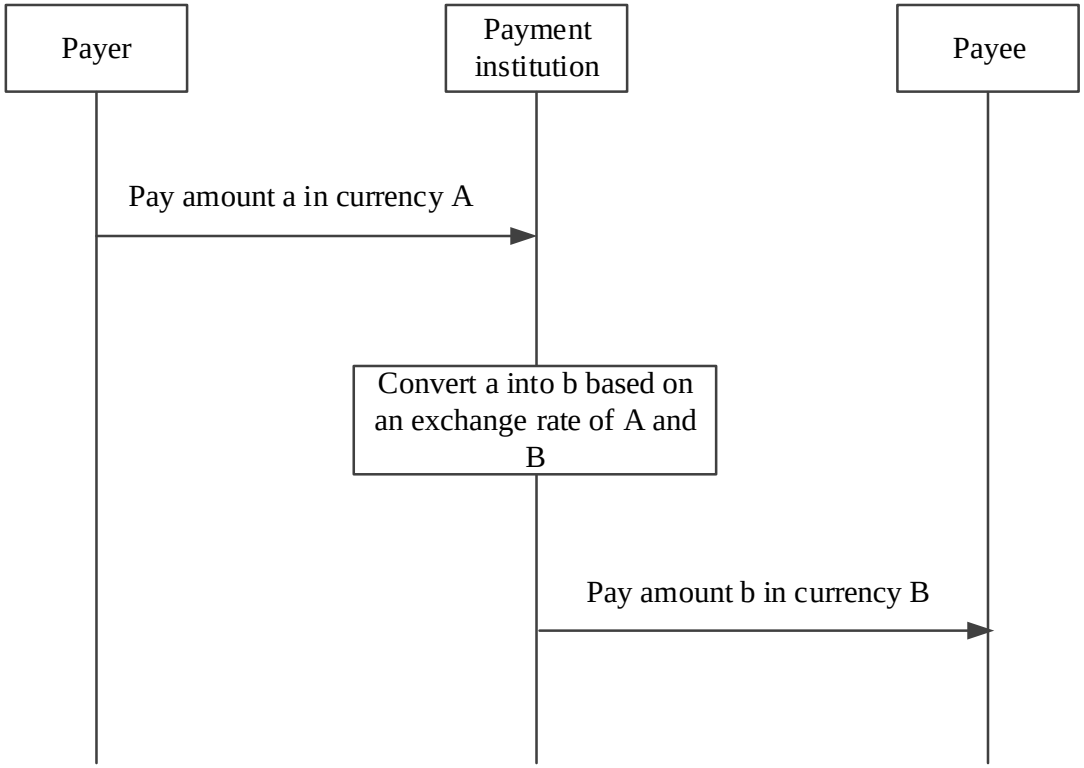

Payer
Payment institution
Payee
Pay amount a in currency A
Convert a into b based on an exchange rate of A and B
Pay amount b in currency B

FIG. 1

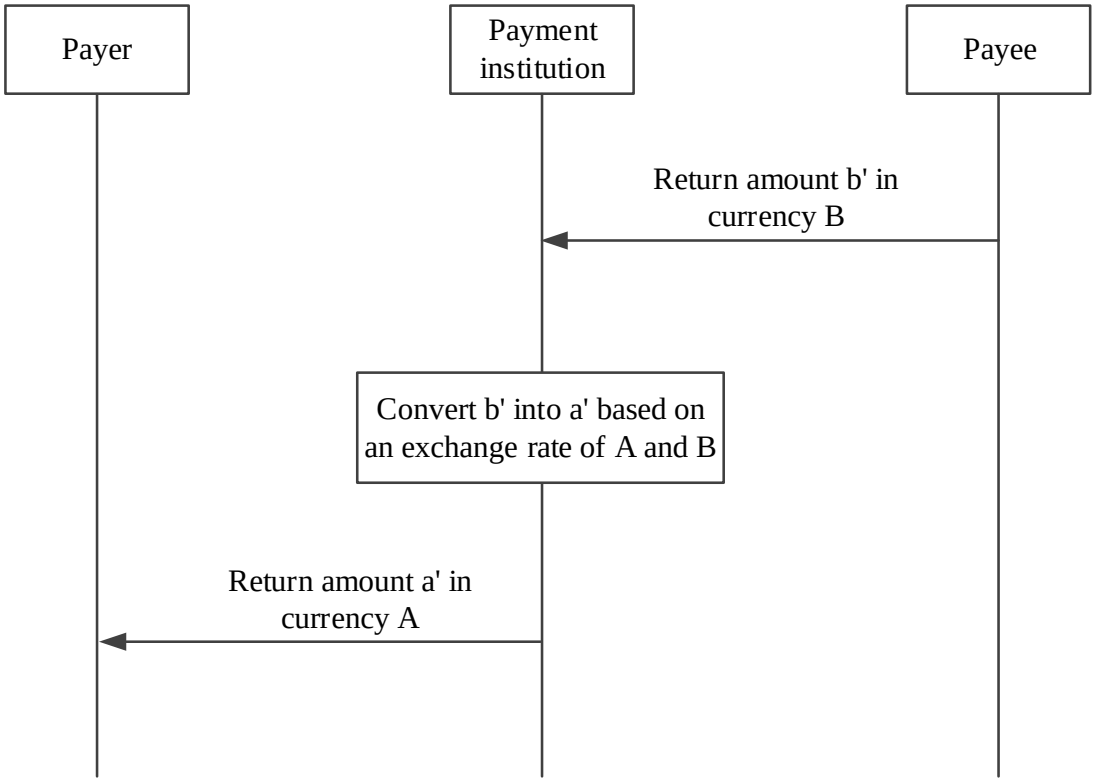

Payer
Payment institution
Payee
Return amount b' in currency B
Convert b' into a' based on an exchange rate of A and B
Return amount a' in currency A

FIG. 2

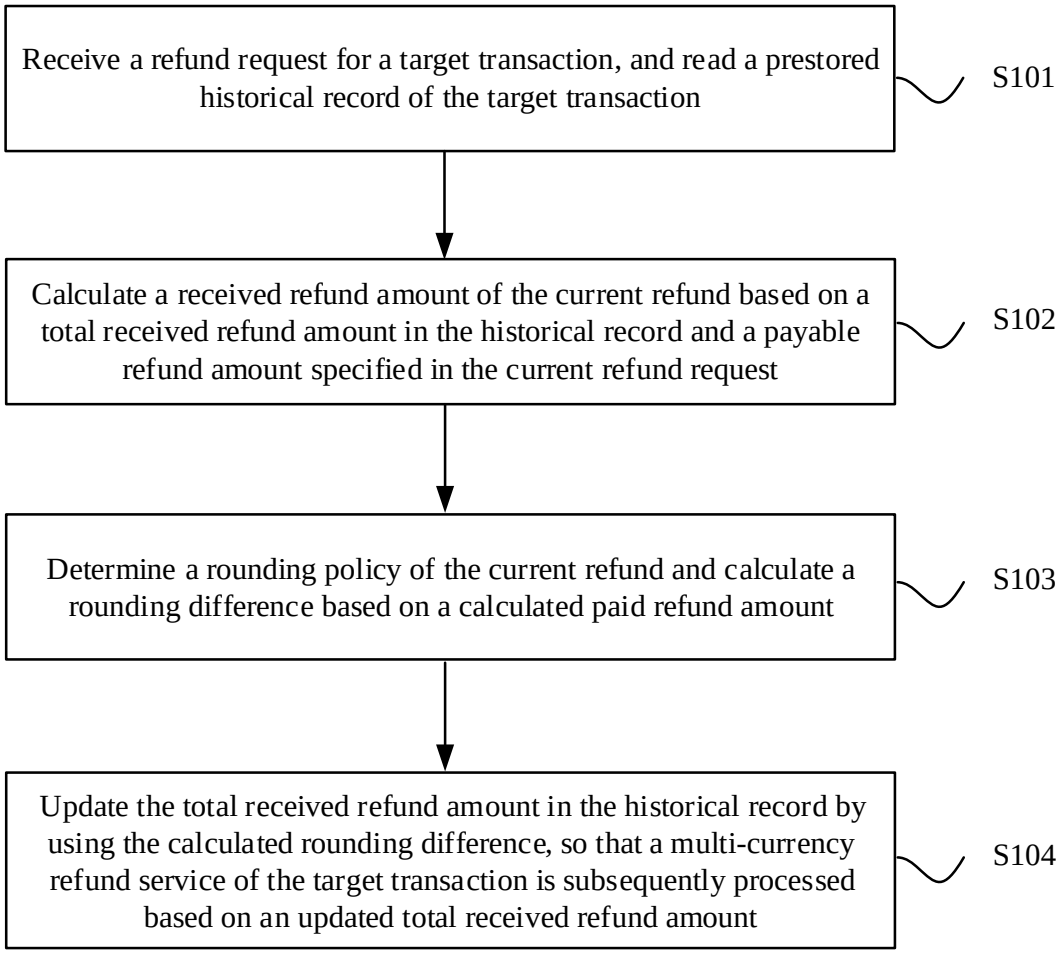

Receive a refund request for a target transaction, and read a prestored historical record of the target transaction
S101
Calculate a received refund amount of the current refund based on a total received refund amount in the historical record and a payable refund amount specified in the current refund request
S102
Determine a rounding policy of the current refund and calculate a rounding difference based on a calculated paid refund amount
S103
Update the total received refund amount in the historical record by using the calculated rounding difference, so that a multi-currency refund service of the target transaction is subsequently processed based on an updated total received refund amount
S104

FIG. 3

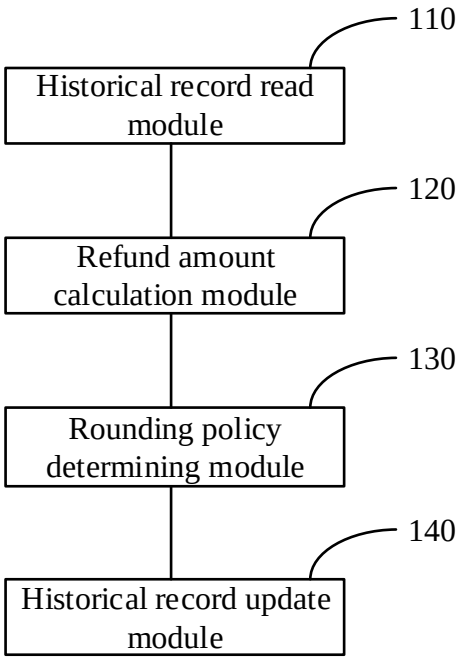

110
Historical record read module
120
Refund amount calculation module
130
Rounding policy determining module
140
Historical record update module

FIG. 4

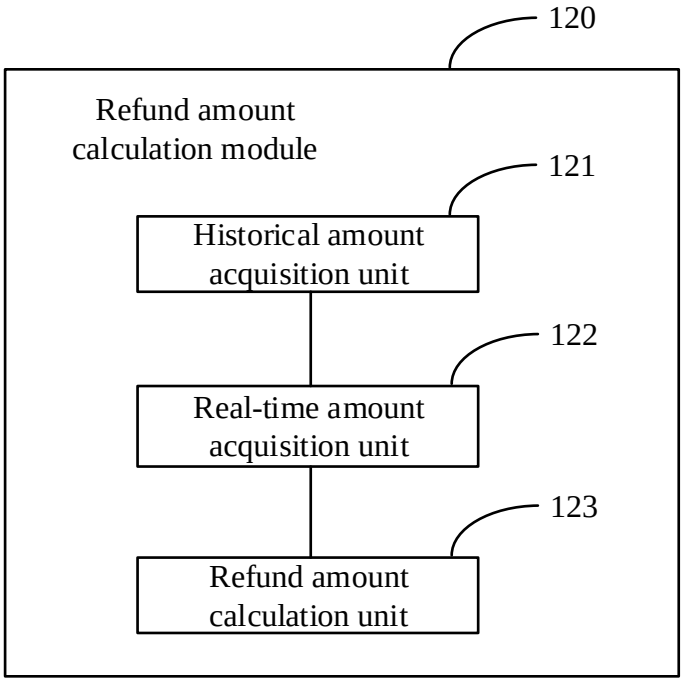

120
Refund amount calculation module
121
Historical amount acquisition unit
122
Real-time amount acquisition unit
123
Refund amount calculation unit

FIG. 5

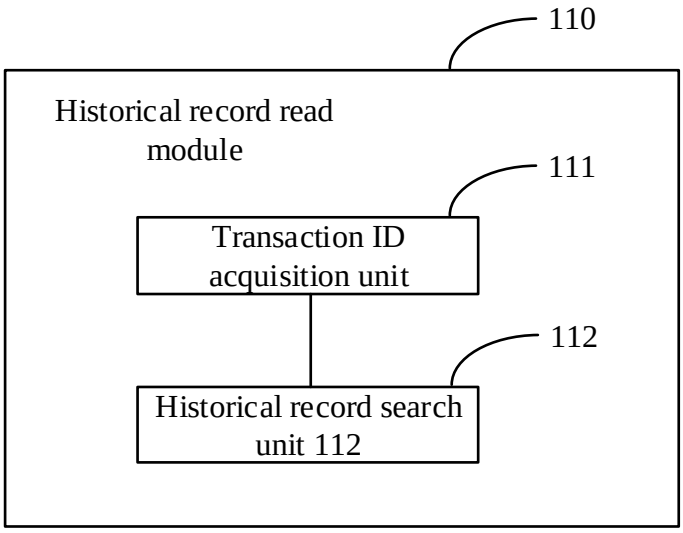

110
Historical record read module
111
Transaction ID acquisition unit
112
Historical record search unit 112

FIG. 6

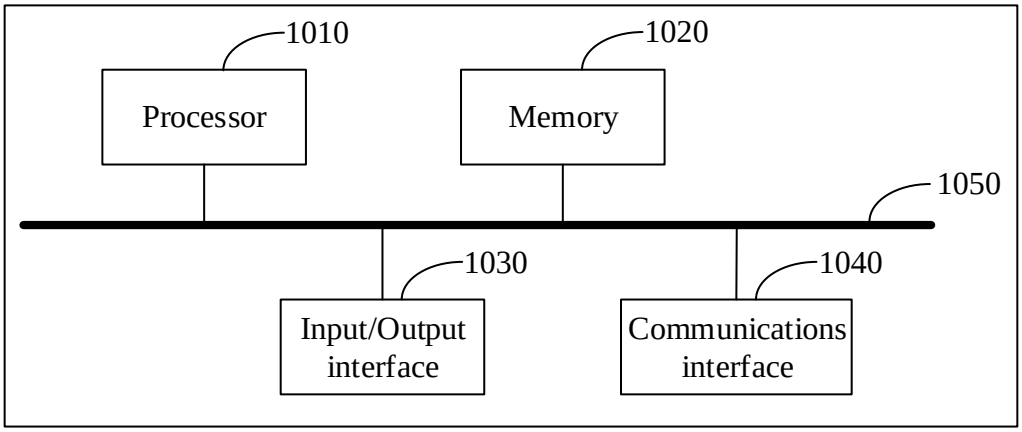

1010
Processor
1020
Memory
1050
1030
Input/Output interface
1040
Communications interface

FIG. 7