

## CLAIMS

What is claimed is:

1. A method, comprising:
  - providing computer executable instructions to implement a first client, a second
  - 5 client and a server;
  - wherein the computer executable instructions, when executed by one or more processors, enable the one or more processors to conduct acts including:
    - at the first client,
      - obtaining identification information of a first user, payment information,
      - 10 and a first geographical location of a first terminal device of the first user;
      - sending the identification information of the first user, the payment information, and the first geographical location to a server for the server to generate a payment password; and
      - receiving the payment password returned by the server;
      - 15 at the second client,
        - obtaining the payment password from the first client;
        - obtaining identification information of a second user, payment information, and a second geographical location of a second terminal device of the second user;
        - 20 sending the identification information of the second user, the payment password, and the second geographical location to the server; and
        - at the server,
          - receiving, from the first client, the identification information of the first user, the payment information, and the first geographical location;
          - 25 encoding the identification information of the first user, the first geographical location, and the payment information using a first algorithm to generate a payment password;
          - sending the payment password to the first client;
          - receiving, from the second client, the identification information of the
          - 30 second user, the payment password, and the second geographical location;

decoding the payment password received from the second client using a second algorithm that corresponds to the first algorithm to obtain the first geographical location;

5 determining that a distance between the first geographical location obtained from the decoding and the second geographical location meets a threshold distance; and

executing a payment operation between the first user and the second user according to the payment information in response to the determining that the distance between the first geographical location and the second geographical location meets the  
10 threshold distance.

2. The method of claim 1, wherein the first geographical location is automatically detected by a positioning module of the first terminal device.

15 3. The method of claim 2, wherein the positioning module includes one or more of a handset-based positioning module and a network-based positioning module.

4. A method, comprising:  
at a server,  
20 receiving, from a first client, payment information and a first geographical location of a first terminal device of a first user;  
encoding the first geographical location and the payment information using a first algorithm to generate a payment password corresponding to the first geographical location and the payment information;  
25 sending the payment password to the first client;  
receiving, from a second client, the payment password and a second geographical location of a second terminal device of a second user;  
decoding the payment password received from the second client using a second algorithm that corresponds to the first algorithm to obtain the first geographical  
30 location;  
determining that a distance between the first geographical location obtained from the decoding and the second geographical location meets a threshold distance; and

executing a payment operation according to the payment information in response to the determining that the distance between the first geographical location and the second geographical location meets the threshold distance.

5           5.           The method according to claim 4, comprising:  
receiving identification information of the first user sent by the first client;  
receiving identification information of the second user sent by the second client;  
and  
wherein the executing the payment operation includes linking the identification  
10 information of the first user, the identification information of the second user and the  
payment information.

6.           The method according to claim 4, wherein the payment password  
comprises one or more of a numeric string, a character string, and a natural language  
15 text.

7.           The method according to claim 4, wherein the determining that the  
distance between the first geographical location and the second geographical location  
meets the threshold distance includes:  
20 querying whether there is a matching payment password within the threshold  
distance from the second geographical location.

8.           A system, comprising:  
a server including a processor and a memory device storing executable instructions,  
25 wherein the processor executes the executable instructions to:  
receive, from a first client, payment information and a first geographical  
location of a first terminal device of a first user;  
encode the payment information and the first geographical location  
received from the first client using a first algorithm to generate a payment password  
30 corresponding to the first geographical location and the payment information;  
send the payment password to the first client;  
receive, from a second client, the payment password and a second  
geographical location of a second terminal device of a second user;  
decode the payment password received from the second client using a

second algorithm corresponding to the first algorithm to obtain the first geographic location;

determine that a distance between the first geographical location and the second geographical location meets a threshold distance; and

5           in response to that the distance between the first geographical location obtained from the decoding and the second geographical location meets the threshold distance, execute a payment operation according to the payment information obtained from the decoding.

10           9.       The system according to claim 8, wherein the payment password comprises one or more of a numeric string, a character string, and a natural language text.

15           10.       The system according to claim 8, wherein the determining that the distance between the first geographical location and the second geographical location meets the threshold distance includes querying whether there is a matching payment password within the threshold distance from the second geographical location.

20           11.       The system according to claim 8, comprising:  
the first client including a processor and a memory device storing executable instructions, wherein the processor executes the executable instructions to:  
obtain the payment information and the first geographical location of the first terminal device;  
send the payment information and the first geographical location to the  
25 server; and  
receive the payment password returned by the server.

12.       The system according to claim 8, comprising:  
the second client including a processor and a memory device storing executable  
30 instructions, wherein the processor executes the executable instructions to:  
obtain the payment password;  
obtain the second geographical location of the second terminal device;  
and  
send the second geographical location and the obtained payment

password to the server.

13. The system of claim 12, wherein the second client obtains the payment password from a user input or from the first client upon a user instruction.

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14. A device, comprising:

a memory, storing a payment program of executable instructions; and

a processor, operable to execute the instructions of the payment program to perform following acts:

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at a server,

receiving, from a first client, payment information and a first geographical location of a first terminal device of a first user;

encoding the payment information and the first geographical location using a first algorithm to generate a payment password corresponding to the first geographical location and the payment information;

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sending the payment password to the first client;

receiving, from a second client, the payment password and a second geographical location of a second terminal device of a second user;

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decoding the payment password received from the second client using a second algorithm corresponding to the first algorithm to obtain the first geographical location;

determining that a distance between the first geographical location obtained from the decoding and the second geographical location meets a threshold distance; and

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in response to the determining that the distance between the first geographical location and the second geographical location meets the threshold distance, executing a payment operation according to the payment information.

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15. The method of claim 4, wherein the threshold distance is determined as a distance for a face-to-face interaction between users of the first client and the second client.

16. The method of claim 4, wherein the encoding the payment information and the first geographic location includes encoding the payment information and the first

geographic location with a random factor.

17. The system of claim 12, wherein the second client automatically obtains the second geographic location without interference by the second user.