

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;~~that is used~~
~~to access the first client;~~
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
15 receiving the payment password returned by the server;
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
20 second user;
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
25 user, the payment information, and the first geographical location;
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;
30 receiving, from the second client, the identification information of the
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 ~~in~~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. The method of claim 1, comprising:~~
~~at a second client,~~
20 ~~obtaining the payment password;~~
~~obtaining identification information of a second user and a second geographical location of a terminal device that is used to access the second client; and~~
~~sending the identification information of the second user, the second geographical location, and the payment password to the server.~~

25 ~~45.~~ A method, comprising:
at a server,
receiving, from a first client, payment information ~~that is sent by a first client~~ and a first geographical location of a first terminal device of a first user~~that is~~
30 ~~used to access the first client;~~
encoding the first geographical location and the payment information using a first algorithm to generate~~ing~~ a payment password corresponding to the first geographical location and the payment information;

sending the payment password to the first client;

receiving from a second client, the payment password ~~that is sent by a second client~~ and a second geographical location of a second terminal device of a second user~~that is used to access the second client~~;

5 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;

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

10 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.

15 56. The method according to claim 45, comprising:

receiving identification information of ~~thea~~ first user sent by the first client;

receiving identification information of ~~thea~~ second user sent by the second client;

and

20 wherein the executing the payment operation includes linking the identification information of the first user, the identification information of the second user and the payment information.

25 67. The method according to claim 45, wherein the payment password comprises one or more of a numeric string, a character string, and a natural language text.

30 78. The method according to claim 45, 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.

~~9. — The method according to claim 5, wherein the generating the payment password comprises:~~

~~generating the payment password containing the first geographical location and the payment information by using the first geographical location and the payment information as a seed for encoding.~~

5 ~~10. The method according to claim 9, wherein the determining that the distance between the first geographical location and the second geographical meets the threshold comprises:~~

~~— obtaining the first geographical location by decoding the payment password; and~~

10 ~~— determining whether the distance between first geographical location obtained through the decoding and the second geographical location meets the threshold distance.~~

~~811.~~ A system, comprising:

15 a server including a processor and a memory device storing executable instructions, wherein the processor executes the executable instructions to:

~~a receiving module, configured to receive, from a first client, payment information that is sent by a first client~~ and a first geographical location of a first terminal device of a first user that is used to access the first client;

20 ~~a generation module, configured to encode the payment information and the first geographical location received from the first client using a first algorithm to generate a payment password corresponding to the first geographical location and the payment information;~~

25 ~~a storage module, configured to store a correspondence between the first geographical location, the payment information, and the payment password;~~

~~a sending module, configured to send the payment password to the first client;~~

30 ~~wherein the receiving module is further configured to receive, from a second client, the payment password that is sent by a second client~~ and a second geographical location of a second terminal device of a second user used to access the second client;

~~decode the payment password received from the second client using a second algorithm corresponding to the first algorithm to obtain the first geographic location;~~

~~a determining module, configured to~~ determine that a distance between the first geographical location and the second geographical location meets a threshold distance; and

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

912. The system according to claim 811, wherein the payment password
10 comprises one or more of a numeric string, a character string, and a natural language text.

103. The system according to claim 811, wherein the determining that the
distance between the first geographical location and the second geographical location
15 meets the threshold distance includes querying~~module is configured to query~~ whether there is a matching payment password within the threshold distance from the second geographical location.

~~14. The system according to claim 11, wherein:~~
20 ~~the generation module is configured to generate the payment password containing the first geographical location and the payment information by using the first geographical location and the payment information as a seed for encoding; and~~
~~the determining module is configured to decode the payment password to obtain the first geographical location, and to determine whether the first geographical location~~
25 ~~obtained through the decoding and the second geographical location are within the threshold distance.~~

115. The system according to claim 811, comprising:
the first client including a processor and a memory device storing executable
30 instructions, wherein the processor executes the executable instructions to:

~~an acquisition module, configured to~~ obtain the payment information and the first geographical location of the first terminal device;

~~a sending module, configured to~~ send the payment information and the first geographical location to the server; and

~~a receiving module, configured to~~ receive the payment password returned by the server.

126. The system according to claim ~~84~~, comprising:

5 the second client including a processor and a memory device storing executable instructions, wherein the processor executes the executable instructions to:

~~an instruction receiving module, configured to~~ obtain the payment password;

~~an acquisition module, configured to~~ obtain the second geographical
10 location of the second terminal device; and

~~a sending module, configured to~~ send the second geographical location and the obtained payment password to the server.

137. The system of claim 126, wherein the ~~second client~~instruction receiving module obtains the payment password ~~one or more of~~ from ~~an~~ user input or
15 from the first client upon ~~a~~ user instruction.

148. A device, comprising:

a memory, storing a payment program of executable instructions; and
20 a processor, operable to execute the instructions of the payment program to perform ~~the~~ following acts:

at a server,

receiving, from a first client, payment information ~~that is sent by a first client~~ and a first geographical location of a first terminal device of a first user;

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

sending the payment password to the first client;

receiving, from a second client, the payment password ~~that is sent by a second client~~ 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

5 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.

~~19. The device according to claim 18, wherein the generating the payment password includes encoding the first geographical location and the payment information.~~
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~~20. The device according to claim 19, wherein the determining that the distance between the first geographical location and the second geographical location meets the threshold distance includes decoding the payment password to obtain the first geographical location.~~
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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.

20 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.
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