

CLAIMS

What is claimed is:

1. ~~A computer-implemented identity authentication method~~ for identity authentication and registration number binding, comprising:

receiving, by one or more servers of a data authentication platform, a user identity authentication request of a user sent by a client of ~~a the~~ data authentication platform, wherein the user identity authentication request comprises first user authentication information and user identification information, and ~~a the one or more servers~~ of the data authentication platform pre-stores second user authentication information and a registration number and a secret token that correspond to the user identification information;

obtaining, by the one or more servers according to the user identification information, the second user authentication information pre-stored in the one or more servers of the data authentication platform;

matching, by the one or more servers, the first user authentication information in the received user identity authentication request with the obtained second user authentication information pre-stored in the one or more servers of the data authentication platform;

in response to the matching succeeding and in response to receiving, when the matching succeeds, a confirmation result of the user for obtaining registration number, wherein the confirmation result is sent by the one or more servers from the client of the data authentication platform; a request for obtaining the registration number,

obtaining, by the one or more servers, the registration number and the ~~corresponding~~ secret token that correspond to the user identification information, wherein obtaining the registration number and the secret token comprises: of the user according to the received confirmation result; and

sending a plurality of registration numbers of the user to the client of the data authentication platform, and

obtaining the registration number that is selected by the user from the plurality of registration numbers from the client and the secret token that corresponds to the registration number selected by the user; and

sending, by the one or more servers, the obtained registration number and ~~corresponding the~~ secret token ~~of the user~~ to a third-party organization server.

~~2. The identity authentication method according to claim 1, wherein the obtaining a registration number and a corresponding secret token of the user comprises:~~

~~obtaining each registration number and each corresponding secret token of the user; or
sending each obtained registration number of the user to the client of the data
authentication platform and obtaining a registration number selected by the user and a secret
token corresponding to the registration number selected by the user.~~

~~32. The identity authentication method according to claim 1, wherein the user is a pre-
registered user; and~~

before ~~the~~ receiving a the user identity authentication request sent by a the client of a the
data authentication platform, the method further comprises:

~~respectively generating, by the one or more servers, irreversible unique the~~ secret tokens
~~that corresponds to the user identification information~~ by using ~~one or more the~~ registration
numbers ~~that corresponds to the user identification information; of one or more pre-registered
users; and~~

sending, by the one or more servers, the generated secret tokens to the third-party
organization server ~~in batches.~~

~~43. The identity authentication method according to claim 1, wherein the one or more
servers of the data authentication platform pre-stores a unique identification (ID) corresponding
to the user identification information; and~~

after ~~the~~ receiving a the user identity authentication request sent by a the client of a the
data authentication platform, the method further comprises: obtaining, by the one or more
servers, according to the unique ID, the second user authentication information pre-stored in
the one or more servers of the data authentication platform.

~~54. A number saving and sending~~The method according to claim 1, further comprising:

receiving ~~a,~~ by the third-party organization server, the registration number and a the
~~corresponding~~ secret token ~~of a user sent by from a the one or more servers of a the~~ data
authentication platform;

matching, by the third-party organization server, the received secret token corresponding
to the registration number ~~of the user~~ with pre-stored secret tokens sent by the one or more
servers of the data authentication platform ~~in batches;~~;

in response to the matching between the received secret token and the pre-stored wherein
~~the~~ secret tokens succeeding, ~~sent in batches are associated with pre-stored user identification
information;~~

saving, by the third-party organization server, the received registration number ~~of the user~~
~~when the matching succeeds, wherein the saved registration number of the user is in~~
associationed with ~~the~~ pre-stored user identification information ~~of the user in the third-party~~

organization server;

receiving, by the third-party organization server, a user number binding request ~~sent by/from~~ a third-party organization client, wherein the user number binding request comprises the first user authentication information and the user identification information;

obtaining, by the third-party organization server, according to the user identification information, third user authentication information pre-stored in ~~a-the~~ third-party organization server;

matching, by the third-party organization server, the first user authentication information in the received user number binding request with the obtained third user authentication information pre-stored in the third-party organization server;

in response to the matching between the first user authentication information and the third user authentication information succeeding, obtaining, by the third-party organization server, the saved registration number ~~of the user~~ according to the user identification information ~~when the matching succeeds~~ in the received user number binding request; and

sending, by the third-party organization server, the obtained saved registration number ~~of the user~~ to the third-party organization client.

65. The ~~number saving and sending~~ method according to claim 54, wherein the third-party organization server pre-stores a unique identification (ID) corresponding to the user identification information; and

after ~~the~~ receiving ~~a-the~~ user number binding request ~~sent by/from a-the~~ third-party organization client, the method further comprises: obtaining, by the third-party organization server according to the unique ID, the third user authentication information pre-stored in the third-party organization server.

76. The ~~number saving and sending~~ method according to claim 65, wherein before ~~the~~ receiving ~~a-the~~ registration number and ~~a-corresponding the~~ secret token ~~of a user sent by/from a-one or more~~ servers of the data authentication platform, the method further comprises: receiving, by the third-party organization server, the secret tokens ~~respectively generated by/from~~ the one or more servers of the data authentication platform, wherein the secret token is generated by the one or more servers of the data authentication platform according to ~~one or more the~~ registration numbers ~~of one or more users~~.

87. ~~A number binding~~The method according to claim 4, further comprising:

receiving, ~~by a user number binding request and sending the user number binding request to-a-the~~ third-party organization ~~server/client,~~ ~~wherein the user number binding request comprises user authentication information and user identification information;~~

~~receiving, when the third-party organization server succeeds in matching the user authentication information, at the~~ registration number ~~of a user sent by~~from the third-party organization server; and

receiving, by the third-party organization client, a confirmation ~~result of~~by the user for ~~number-binding, wherein the~~ registration number-binding is successful.

98. The ~~number-binding~~ method according to claim 87, wherein ~~the~~ receiving ~~a the~~ registration number ~~of a user sent by~~from the third-party organization server comprises:

receiving a registration number selected by the user and sent by the third-party organization server; or

receiving each registration number ~~of the user~~ sent by the third-party organization server and obtaining a registration number selected by the user.

109. The ~~number-binding~~ method according to claim 84, wherein ~~after the receiving at the~~ registration number corresponds to a payment account~~of a user sent by the third-party organization server~~, and the method further comprises:

receiving, by the third-party organization server, from the third-party organization client, a confirmation of the registration number sent from the third-party organization server, wherein the confirmation indicates a success in binding the payment account with a payment application maintained by the third-party organization server and accessible from the third-party organization client~~result of the user for stopping number binding, the number binding being unsuccessful~~.

11. An identity authentication apparatus, comprising: ~~a request receiving module, an information obtaining module, an information matching module, a result receiving module, a number and secret token obtaining module, and a number and secret token sending module; wherein~~

~~the request receiving module is configured to receive a user identity authentication request sent by a client of a data authentication platform, wherein the user identity authentication request comprises user authentication information and user identification information, and a server of the data authentication platform pre-stores user authentication information and a registration number and a secret token that correspond to the user identification information;~~

~~the information obtaining module is configured to obtain, according to the user identification information, the user authentication information pre-stored in the server of the data authentication platform;~~

~~the information matching module is configured to match the user authentication information in the received user identity authentication request with the obtained user~~

authentication information pre-stored in the server of the data authentication platform;

the result receiving module is configured to receive, when the matching succeeds, a confirmation result of the user for obtaining registration number, wherein the confirmation result is sent by the client of the data authentication platform;

the number and secret token obtaining module is configured to obtain the registration number and the corresponding secret token of the user according to the received confirmation result; and

the number and secret token sending module is configured to send the obtained registration number and corresponding secret token of the user to a third-party organization server.

12. The identity authentication apparatus according to claim 11, wherein the number and secret token obtaining module is configured to obtain each registration number and each corresponding secret token of the user; or send each obtained registration number of the user to the client of the data authentication platform and obtain a registration number selected by the user and a secret token corresponding to the registration number selected by the user.

13. The identity authentication apparatus according to claim 11, wherein the user is a pre-registered user, and the apparatus further comprises: a secret token generation module and a secret token sending module, wherein

the secret token generation module is configured to respectively generate irreversible unique secret tokens by using one or more registration numbers of one or more pre-registered users before the request receiving module receives the user identity authentication request sent by the client of the data authentication platform; and

the secret token sending module is configured to send the generated secret tokens to the third-party organization server in batches.

14. A number saving and sending apparatus, comprising: a number and secret token receiving module, a secret token matching module, a number saving module, a request receiving module, an information obtaining module, an information matching module, a number obtaining module, and a number sending module, wherein

the number and secret token receiving module is configured to receive a registration number and a corresponding secret token of a user sent by a server of a data authentication platform;

the secret token matching module is configured to match the received secret token corresponding to the registration number of the user with pre-stored secret tokens sent by the server of the data authentication platform in batches, wherein the secret tokens sent in batches

are associated with pre-stored user identification information;

the number saving module is configured to save the received registration number of the user when the matching succeeds, wherein the saved registration number of the user is associated with the pre-stored user identification information of the user;

the request receiving module is configured to receive a user number binding request sent by a third-party organization client, wherein the user number binding request comprises user authentication information and user identification information;

the information obtaining module is configured to obtain, according to the user identification information, user authentication information pre-stored in a third-party organization server;

the information matching module is configured to match the user authentication information in the received user number binding request with the obtained user authentication information pre-stored in the third-party organization server;

the number obtaining module is configured to obtain the registration number of the user according to the user identification information when the matching succeeds; and

the number sending module is configured to send the obtained registration number of the user to the third-party organization client.

15. The number saving and sending apparatus according to claim 14, wherein before receiving the registration number and the corresponding secret token of the user sent by the server of the data authentication platform, the number and secret token receiving module is further configured to receive secret tokens respectively generated by the server of the data authentication platform according to one or more registration numbers of one or more users.

16. A number binding apparatus, comprising: a request receiving module, a request sending module, a number receiving module, and a result receiving module, wherein

the request receiving module is configured to receive a user number binding request;

the request sending module is configured to send the user number binding request to a third-party organization server, wherein the user number binding request comprises user authentication information and user identification information;

the number receiving module is configured to receive, when the third-party organization server succeeds in matching the user authentication information, a registration number of a user sent by the third-party organization server; and

the result receiving module is configured to receive a confirmation result of the user for number binding, wherein the number binding is successful.

17. The number binding apparatus according to claim 16, wherein the number receiving

~~module is configured to receive a registration number selected by the user and sent by the third-party organization server; or receive each registration number of the user sent by the third-party organization server and obtain a registration number selected by the user.~~

~~18. The number binding apparatus according to claim 16, wherein after the number receiving module receives the registration number of the user sent by the third-party organization server, the result receiving module is further configured to obtain a confirmation result of the user for stopping number binding, the number binding being unsuccessful.~~

10. One or more non-transitory computer-readable storage media storing instructions executable by one or more processors, wherein execution of the instructions causes the one or more processors to perform operations comprising:

receiving a user identity authentication request of a user sent by a client of a data authentication platform, wherein the user identity authentication request comprises first user authentication information and user identification information, and one or more servers of the data authentication platform pre-store second user authentication information and a registration number and a secret token that correspond to the user identification information;

obtaining, according to the user identification information, the second user authentication information pre-stored in the one or more servers of the data authentication platform;

matching the first user authentication information in the received user identity authentication request with the obtained second user authentication information pre-stored in the one or more servers of the data authentication platform;

in response to the matching succeeds and in response to receiving, from the client of the data authentication platform, a request for obtaining the registration number, obtaining the registration number and the secret token that correspond to the user identification information, wherein obtaining the registration number and the secret token comprises:

sending a plurality of registration numbers of the user to the client of the data authentication platform, and

obtaining the registration number that is selected by the user from the plurality of registration numbers from the client and the secret token that corresponds to the registration number selected by the user; and

sending the obtained registration number and secret token to a third-party organization server.

11. The one or more non-transitory computer-readable storage media according to claim 10, wherein before receiving the user identity authentication request sent by the client of the data authentication platform, the operations further comprise:

generating the secret token by using the registration number; and
sending the generated secret token to the third-party organization server.

12. The one or more non-transitory computer-readable storage media according to claim 10, wherein the operations further comprise:

receiving the registration number and the secret token from the one or more servers of the data authentication platform;

matching the received secret token corresponding to the registration number with pre-stored secret tokens sent by the one or more servers of the data authentication platform;

in response to the matching between the received secret token and the pre-stored secret tokens succeeding, saving the received registration number in association with pre-stored user identification information in the third-party organization server;

receiving a user number binding request from a third-party organization client, wherein the user number binding request comprises the first user authentication information and the user identification information;

obtaining, according to the user identification information, third user authentication information pre-stored in the third-party organization server;

matching the first user authentication information in the received user number binding request with the obtained third user authentication information pre-stored in the third-party organization server;

in response to the matching between the first user authentication information and the third user authentication information succeeding, obtaining the saved registration number according to the user identification information in the received user number binding request; and

sending the obtained saved registration number to the third-party organization client.

13. The one or more non-transitory computer-readable storage media according to claim 12, wherein the operations further comprise:

receiving the registration number from the third-party organization server; and

receiving a confirmation by the user for binding the registration number.

14. The one or more non-transitory computer-readable storage media according to claim 12, wherein the registration number corresponds to a payment account, and the operations further comprise:

receiving, from the third-party organization client, a confirmation of the registration number sent from the third-party organization server, wherein the confirmation indicates a success in binding the payment account with a payment application maintained by the third-party organization server and accessible from the third-party organization client.

15. A system comprising one or more processors and one or more non-transitory computer-readable memories coupled to the one or more processors and configured with instructions executable by the one or more processors to cause the system to perform operations comprising:

receiving a user identity authentication request of a user sent by a client of a data authentication platform, wherein the user identity authentication request comprises first user authentication information and user identification information, and one or more servers of the data authentication platform pre-store second user authentication information and a registration number and a secret token that correspond to the user identification information;

obtaining, according to the user identification information, the second user authentication information pre-stored in the one or more servers of the data authentication platform;

matching the first user authentication information in the received user identity authentication request with the obtained second user authentication information pre-stored in the one or more servers of the data authentication platform;

in response to the matching succeeding and in response to receiving, from the client of the data authentication platform, a request for obtaining the registration number, obtaining the registration number and the secret token that correspond to the user identification information, wherein obtaining the registration number and the secret token comprises:

sending a plurality of registration numbers of the user to the client of the data authentication platform, and

obtaining the registration number that is selected by the user from the plurality of registration numbers from the client and the secret token that corresponds to the registration number selected by the user; and

sending the obtained registration number and the secret token to a third-party organization server.

16. The system according to claim 15, wherein before receiving the user identity authentication request sent by the client of the data authentication platform, the operations further comprise:

generating the secret token by using the registration number; and

sending the generated secret token to the third-party organization server.

17. The system according to claim 15, wherein the operations further comprise:

receiving the registration number and the secret token from the one or more servers of the data authentication platform;

matching the received secret token corresponding to the registration number with pre-

stored secret tokens sent by the one or more servers of the data authentication platform;

in response to the matching between the received secret token and the pre-stored secret tokens succeeding, saving the received registration number in association with pre-stored user identification information in the third-party organization server;

receiving a user number binding request from a third-party organization client, wherein the user number binding request comprises the first user authentication information and the user identification information;

obtaining, according to the user identification information, third user authentication information pre-stored in the third-party organization server;

matching the first user authentication information in the received user number binding request with the obtained third user authentication information pre-stored in the third-party organization server;

in response to the matching between the first user authentication information and the third user authentication information succeeding, obtaining the saved registration number according to the user identification information in the received user number binding request; and

sending the obtained saved registration number to the third-party organization client.

18. The system according to claim 17, wherein the operations further comprise:

receiving the registration number from the third-party organization server; and

receiving a confirmation by the user for binding the registration number.

19. The system according to claim 17, wherein the registration number corresponds to a payment account, and the operations further comprise:

receiving, from the third-party organization client, a confirmation of the registration number sent from the third-party organization server, wherein the confirmation indicates a success in binding the payment account with a payment application maintained by the third-party organization server and accessible from the third-party organization client.

19. A system for identity authentication, number saving and sending, and number binding, comprising an identity authentication apparatus, a number saving and sending apparatus, and a number binding apparatus.

20. An identity authentication device, comprising a memory and a processor, wherein the memory stores a program, and the program is configured to cause the processor to perform the identity authentication method according to any one of claims 1 to 4.

21. A number saving and sending device, comprising a memory and a processor, wherein the memory stores a program, and the program is configured to cause the processor to perform the number saving and sending method according to any one of claims 5 to 7.

~~22. A number binding device, comprising a memory and a processor, wherein the memory stores a program, and the program is configured to cause the processor to perform the number binding method according to any one of claims 8 to 10.~~