

A METHOD AND SYSTEM FOR PERFORMING ELECTRONIC SHAREHOLDER VOTING THROUGH AN ELECTRONIC PASSBOOK

BACKGROUND OF THE INVENTION

5 I. Field of the Invention

The present invention relates to a method and system for shareholder electronic voting, and more particularly to, the use of an existing electronic passbook account for conducting shareholder electronic voting.

10 II. Description of the Prior Art

Recently, with the rapid advances in the technological industry, the development of Internet applications has become more and more diverse. Things that were believed to be impossible in the past have been achieved one after another with the help of technology. Electronic voting is among them. In the current implementation of voting
15 techniques for shareholder voting, there are multiple shareholder voting mechanisms. Shareholder voting on each stock with different voting mechanisms will make the owner of the multiple stocks exhausted, thus reducing the willingness to vote. In the current shareholder voting technique, shareholder voting on each stock is conducted independently, or it can be notified via paper, thereby reducing the willingness of the
20 owner with multiple different stocks to conduct the shareholder voting.

In summary, it can be seen that there has been a long-standing low willingness of shareholders to vote. In addition, different shareholder voting processes are conducted in different ways, which will not only increase the total cost of the
25 shareholder voting processes but also make the shareholder voting processes inefficient. Accordingly, there is a need a better solution to resolve the above-mentioned issues.

SUMMARY OF THE INVENTION

One object of the present invention is to provide a method and system for using an account of an existing electronic passbook to enable the account holder thereof to conduct shareholder electronic voting so as to simplify the authentication procedure for shareholder electronic voting.

In one embodiment, the present invention discloses a method for conducting shareholder electronic voting by using an account of an existing electronic passbook, said method comprising: at least one first server for receiving an account number and a password of a first electronic passbook from a mobile device of a user to verify the identity of the user, wherein the at least one first server is associated with identification data of the user and an electronic server certificate, wherein the at least one first server receives a first request from the mobile device for obtaining a digital signature value, wherein the at least one first server performs a digital signing based on said electronic server certificate and said identification data of the user to generate a digital signature value and transmits said digital signature value to the mobile device; and at least one second server for receiving the digital signature value to enable the user to conduct electronic shareholder voting.

In one embodiment, the mobile device is a mobile phone.

In one embodiment, said identification data includes the country-wide identification number or social security number of the user.

In one embodiment, the account of the first electronic passbook is an account of a mobile-phone electronic securities passbook.

In one embodiment, the user clicks on an electronic voting command on an interface of an electronic passbook application running on the mobile phone so as to generate the first request.

In one embodiment, the at least one server comprises at least one server of a depository, and the account of the mobile-phone electronic securities passbook is associated with the depository.

In one embodiment, the at least one server verifies said account number, said password and a mobile phone number of the mobile device to verify the identity of the user.

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In one embodiment, the present invention discloses a system for conducting shareholder electronic voting, said system comprising: at least one first server, for receiving a first request from a mobile device associated with a first electronic passbook account of a user to obtain a digital signature value, wherein the at least one first server
10 has verified the identity of the user of first electronic passbook account, and the at least one first server is associated with identification data of the user and an electronic server certificate, wherein the at least one first server performs a digital signing based on said electronic server certificate and said identification data of the user to generate a digital signature value and transmits said digital signature value to the mobile device; and at
15 least one second server, for receiving the digital signature value to enable the user to conduct electronic shareholder voting.

In one embodiment, the mobile device is a mobile phone.

20 In one embodiment, said identification data includes the country-wide identification number or social security number of the user.

In one embodiment, the account of the first electronic passbook is an account of a mobile-phone electronic securities passbook.

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In one embodiment, the user clicks on an electronic voting command on an interface of an electronic passbook application running on the mobile phone so as to generate the first request.

30 In one embodiment, the at least one server comprises at least one server of a depository, and the account of the mobile-phone electronic securities passbook is associated with the depository.

In one embodiment, the at least one server verifies said account number, said password and a mobile phone number of the mobile device to verify the identity of the user.

5 **BRIEF DESCRIPTION OF THE DRAWINGS**

The foregoing aspects and many of the accompanying advantages of this invention will become more readily appreciated as the same becomes better understood by reference to the following detailed description when taken in conjunction with the accompanying drawings, wherein:

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FIG. 1 illustrates a schematic diagram of a system for using an account of an existing electronic passbook to conduct shareholder electronic voting;

FIG. 2 illustrates a flow chart of a method for using an account of an existing electronic passbook to conduct shareholder electronic voting;

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FIG. 3 illustrates a schematic diagram of a system for using an account of an existing electronic passbook to conduct shareholder electronic voting; and

FIG. 4 is a schematic diagram of an architecture of an electronic passbook application.

20 **DETAILED DESCRIPTION OF THE INVENTION**

The detailed description of the present invention is described below. The described preferred embodiments are for purposes of illustration and description and are not intended to limit the scope of the invention.

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FIG. 1 illustrates a system for using an account of an existing electronic passbook to enable the account holder thereof to conduct shareholder electronic voting, the system comprising: at least a first server 132 for receiving a first request associated with an account of a first electronic passbook 134 from a mobile device 110 of a user to
30 verify the identity of the user, wherein the at least one first server 132 is associated with

identification data of the user, wherein the mobile device 110 has transmitted the account number the first electronic passbook 134 and a password 150 to the at least one first server 132 to verify the identity of the user, wherein the at least one first server 132 has a server certificate 180, and the at least one first server uses the server certificate 180 to perform digital signing with respect to the identification data of the user so as to generate a digital signature value 160 and returns the digital signature value to the mobile device 110; and at least one second server 122 for receiving the digital signature value 160 from the mobile device 110 of the user to enable the user to conduct shareholder electronic voting.

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In one embodiment, the user of the mobile phone passbook APP (Application Program) 118 can subsequently use the user identification code in the digital signature value 160 as the identification code to conduct shareholder electronic voting.

15 In one embodiment, the mobile device 110 transmits the digital signature value to the at least one second server 122 so that the user can conduct shareholder electronic voting with the at least one second server 122.

In one embodiment, the mobile device is a mobile phone.

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In one embodiment, the at least one first server 132 and the at least one second server 122 can communicate with each other to exchange information such that the digital signature value can be generated and verified.

25 In one embodiment, the server certificate 180 is a mobile-phone passbook server certificate.

In one embodiment, the identification data includes the user's ID (identification) number or social security number.

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In one embodiment, the identification data includes user's ID number as well as the mobile phone number of the user, the mobile device 110 transmits the digital signature value to the at least one second server 122 to enable the user to conduct

shareholder electronic voting, wherein the at least one second server 122 compares the mobile number of the mobile device 110 to determine whether the mobile phone number of the user is included in the identification data of the user.

5 In one embodiment, the account of the first electronic passbook account 134 is an account of an electronic securities passbook.

 In one embodiment, the user clicks on an electronic voting command in an interface of a mobile-phone passbook APP 118 running on the mobile phone so as to
10 generate the first request.

 In one embodiment, the at least one first server 132 has a total number of shares of a first stock of the user from all different sources. In one embodiment, as shown in FIG. 1, the different sources of the user comprise multiple brokerage accounts, wherein
15 the user has a first stock holding in the brokerage account (A) and a first stock holding in the brokerage account (B), wherein total number of shares of a first stock of the user from all different sources is the sum of the first stock holding in the brokerage account (A) and the first stock holding in the brokerage account (B).

20 In one embodiment, the at least one server 132 comprises at least one server of a depository, and the account of the electronic securities passbook is associated with the depository.

 In one embodiment, the user inputs the account number, the password and
25 mobile phone number before the first request is transmitted via the mobile device of the user, and the at least one server 132 compares the account number, the password, and the mobile phone number to verify the user's identity.

 FIG. 2 illustrates a flow chart of a method for using an account of an existing electronic passbook to enable the account holder to conduct shareholder electronic
30 voting. Please refer to FIG. 1 and FIG. 2. In step 201, using at least one first server 132 to receive an account number of a first electronic passbook 134 and a password thereof to verify the identity of the user, wherein the at least one first server 132 is associated with identification data of the user and an electronic server certificate 180; in step 202, the at least one first server 132 is used to receive a first request associated with the first

electronic passbook account 134 from the mobile device 110 of the user to obtain a digital signature value using the at least one first server 132 to receive a first request from the mobile device 110 associated with the account number of the first electronic passbook 134 for obtaining a digital signature value 160; in step 203, using the at least
5 one first server to perform a digital signing based on said electronic server certificate 180 and said identification data of the user to generate a digital signature value 160 and to transmit said digital signature value 160 to the mobile device 110; and in step 204, using at least one second server 122 to receive said digital signature value 160 so as to enable the user to conduct shareholder electronic voting.

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In one embodiment, as shown in FIG. 3, the at least one second server 132 in FIG. 1 may include a web page server 122a, an electronic voting server 122b, and a certificate verification server 122c, wherein the mobile phone passbook APP 118 transmits the digital signature value 160 to the web page server 122a via HTTPS, and
15 the web page server 122a transmits the digital signature value 160 to the electronic voting server 122b, wherein the electronic voting server 122b transmits the digital signature value to the certificate verification server 122c for verifying the digital signature value 160, and the certificate verification server 122c returns the verification result to the electronic voting server 122b upon successful verification, and wherein the
20 electronic voting server 122b returns the verification result to the mobile phone passbook APP 118, and the user identification code carried in the digital signature value 160 can be used to conduct shareholder electronic voting.

The first electronic passbook can be a securities passbook, wherein the at least
25 one first server 132 can be managed by an unbiased third party system, wherein the unbiased third party may be an institution that manages securities transactions, such as a depository, wherein the account of the first electronic passbook 134 is registered in the depository. In one embodiment, the account of the first electronic passbook 134 can be used to browse the securities transaction data of all of the brokerage firms of the user
30 112.

The electronic passbook can be an electronic bank passbook, wherein the at least one server 132 can be an unbiased third party, such as an institution that manages transaction data between the user and the bank.

In one embodiment, the mobile device 110 of the user 112 is provided with an application program (APP), such as an electronic passbook APP 118. In one embodiment, the electronic passbook APP 118 is provided by an institution that manages the securities transaction data, such as a depository. The electronic passbook APP 118 can communicate with the at least one first server 132, and the user 112 inputs an account number of the first electronic passbook and a password 150 to verify the identity of the user 112. The user 112 clicks on a command 116 on an interface of the electronic passbook APP 118 running on the mobile phone so as to generate the first request and transmit the first request to the at least one first server 132. The at least one first server 132 has a server certificate 180. The at least one first server 132 uses the server certificate 180 to perform digital signing with respect to the identification data of the user so as to generate a digital signature value 160 and returns the digital signature value 160 to the mobile device.

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In one embodiment, a mobile phone number or a serial number of the mobile device 110 of the user 112 will be stored in the at least one server 132 such that the mobile device 110 can only be used by the user 112 to communicate with the at least one server 132 for inquiring all transaction data of the user 112. Thus, the user 112 can be assured that there are no other people who can use other mobile phones for inquiring all transaction data of the user 112.

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In one embodiment, the mobile device 110 may be a mobile phone or a tablet computer, but not limited thereto.

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In one embodiment, the user 112 uses the electronic passbook APP 118 of the mobile device 110 to register the account of the first electronic passbook 134 in the at least one first server 132.

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In one embodiment, the user 112 can communicate with the at least one server 132 by using the electronic passbook APP 118 to download transaction data associated with accounts of multiple brokerage firms of the user 112 so as to browse transaction data associated with said accounts of the multiple brokerage firms. In one embodiment, the downloaded transaction data associated with said accounts of the multiple brokerage

firms may be stored in a storage device of the mobile device 110 for the user 112 to browse when the mobile device 110 of the user 112 is not connected to the at least one server 132 later on. In one embodiment, the electronic passbook APP 118 can be manipulated to browse the downloaded transaction data associated with said accounts of the multiple brokerage firms the same way as the electronic passbook APP 118 is connected to the at least one server 132. That is, in any case, the electronic passbook APP 118 can use the same operation mode to browse the transaction data of the multiple brokerage accounts of the user 112 through the electronic securities passbooks regardless of whether the mobile device 110 is connected to the at least one server 132 or not, which provides a convenient way for the user 112 to browse the transaction data of the multiple brokerage accounts through the electronic securities passbooks.

In one embodiment, the electronic passbook APP 118 of the mobile device 110 can communicate with the at least one first server 132, and the at least one first 132 can perform data packing of the electronic securities passbooks of the user 112 and return the packed electronic securities passbooks the user 112 via email.

In one embodiment, the electronic passbook APP 118 may receive the latest news concerning the securities or official latest news.

In one embodiment, the electronic passbook APP 118 can communicate with the at least one first server 132 to browse the transaction data of multiple bank accounts of the user 112 through electronic bank passbooks. That is to say, the electronic bank passbooks can replace the traditional bank passbook, which provides a convenient way for the user 112 to browse the transaction data of the multiple bank accounts through the electronic bank passbooks.

In one embodiment, the user 112 can communicate with the at least one server 132 by using the electronic passbook APP 118 to download transaction data associated with multiple bank accounts of the user 112 so as to browse transaction data associated with said multiple bank accounts. In one embodiment, the downloaded transaction data associated with said multiple bank accounts may be stored in a storage device of the mobile device 110 for the user 112 to browse when the mobile device 110 of the user 112 is not connected to the at least one server 132 later on. In one embodiment, the

electronic passbook APP 118 can be manipulated to browse the downloaded transaction data associated with said multiple bank accounts the same way as the electronic passbook APP 118 is connected to the at least one server 132. That is, in any case, the electronic passbook APP 118 can use the same operation mode to browse the transaction data of the multiple bank accounts of the user 112 through the electronic bank passbooks regardless of whether the mobile device 110 is connected to the at least one server 132 or not, which provides a convenient way for the user 112 to browse the transaction data of the multiple bank accounts through the electronic bank passbooks.

FIG. 4 is a schematic diagram of an architecture of the electronic passbook APP 118. As shown in FIG. 4, the electronic passbook APP 118 is divided into a user interface 422 and function modules. The user interface 422 comprises an account management page 424, a passbook reviewing page 425, a message page 426 and an information page 427. Features of the electronic passbook APP 118 can include passbook installation, graphic advertising, user activities, investor login information modification, historical passbook record display, online passbook updating, and universal one-time password (Universal OTP) acquisition and display.

In order to provide interactive and personalized services, the electronic passbook APP 118 can be used to provide more services. After the account of the user is applied and approved, the mobile-phone passbook account is installed on the mobile phone, so that the user can use the electronic passbook APP 118 to perform security transactions or to browse all of the transaction data. The mobile-phone passbook can replace the magnetic stripe of the traditional passbook with a universal one-time password (Universal OTP) for identity verification so that the user can obtain services from a counter of a brokerage firm or a bank. The electronic passbook APP 118 also provides active, instant and mobilized transaction data and balance posting. The mobile-phone passbook will integrate the securities passbook function into the mobile device in a digital manner. The electronic passbook APP 118 can provide value-added services such as stock-related information or promotional messages. The electronic passbook APP 118 can be provide by the depository.

In one embodiment, the electronic passbook APP 118 can be used to inquire the stock transaction data of a brokerage firm of the user through the electronic securities passbook.

- 5 In one embodiment, the electronic passbook APP 118 can be used to inquire the stock transaction data of all brokerage firms of the user through the electronic securities passbook.

- 10 While the invention has been described in connection with a preferred embodiment, it is not intended to limit the scope of the invention. Any person skilled in the art can make some changes and modifications without departing from the spirit and scope of the present invention. The scope of the patent protection of the invention shall be subject to the definition of the scope of the patent application attached hereto.

Claims

1. A method for conducting shareholder electronic voting, said method comprising:

using at least one first server to receive an account number and a password of a first electronic passbook from a mobile device of a user to verify the identity of the user, wherein the at least one first server is associated with identification data of the user and an electronic server certificate;

using the at least one first server to receive a first request from the mobile device for obtaining a digital signature value;

using the at least one first server to perform a digital signing based on said electronic server certificate and said identification data of the user to generate a digital signature value and to transmit said digital signature value to the mobile device; and

using at least one second server to receive said digital signature value so as to enable the user to conduct shareholder electronic voting.
2. The method according to claim 1, wherein the mobile device is a mobile phone.
3. The method according to claim 1, wherein said identification data includes the country-wide identification number or social security number of the user.
4. The method according to claim 2, wherein the account of the first electronic passbook is an account of a mobile-phone electronic securities passbook.
5. The method according to claim 2, wherein the user clicks on an electronic voting command on an interface of a mobile-phone passbook APP running on the mobile

phone so as to generate the first request.

6. The method according to claim 4, wherein the at least one server comprises at least one server of a depository, and the account of the mobile-phone electronic securities passbook is associated with the depository.

7. The method according to claim 4, wherein the at least one server verifies said account number, said password and a mobile phone number of the mobile device to verify the identity of the user.

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8. A system for conducting shareholder electronic voting, said system comprising:

at least one first server, for receiving a first request from a mobile device associated with a first electronic passbook account of a user to obtain a digital signature value, wherein the at least one first server has verified the identity of the user of first electronic passbook account, and the at least one first server is associated with identification data of the user and an electronic server certificate, wherein the at least one first server performs a digital signing based on said electronic server certificate and said identification data of the user to generate a digital signature value and transmits said digital signature value to the mobile device; and

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at least one second server, for receiving the digital signature value to enable the user to conduct electronic shareholder voting.

9. The system according to claim 8, wherein the mobile device is a mobile phone.

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10. The system according to claim 8, wherein said identification data includes the country-wide identification number or social security number of the user.

11. The system according to claim 8, wherein the account of the first electronic passbook is an account of a mobile-phone electronic securities passbook.
- 5 12. The system according to claim 9, wherein the user clicks on an electronic voting command on an interface of a mobile-phone passbook APP running on the mobile phone so as to generate the first request.
13. The system according to claim 11, wherein the at least one server comprises at
10 least one server of a depository, and the account of the mobile-phone electronic securities passbook is associated with the depository.
14. The system according to claim 11, wherein the at least one server verifies said
15 account number, said password and a mobile phone number of the mobile device to verify the identity of the user.