

CLAIMS

What is claimed is:

1. ~~An electronic certificate transmission~~ method, performed by a terminal of a first user, for transmitting a digital room card to a terminal of a second user, the method comprising:

receiving, via a sharing interface displayed on the terminal of the first user, a sharing operation of a business service for a first electronic certificate for sharing the digital room card with the second user, wherein the first electronic certificate digital room card is sent by a business server to the terminal of a the first user in advance and enables to unlock a smart door lock of a corresponding room;

in response, obtaining user information of a the second user corresponding to the sharing operation through a short-range communication, comprising performing, through the short-range communication, information communication with the between a first terminal of the first user and a second terminal of the second user to obtain the user information of the second user, wherein the sharing operation is conducted by the first user on the first terminal device, and the short-range communication is triggered by the sharing operation and comprises near field communication, Bluetooth communication, radio frequency identification communication, or infrared communication and the user information of the second user comprises a mobile phone number, a business account, or identity certificate information; and

sending a verification request comprising the obtained user information of the second user and identifier information of the first electronic certificate digital room card to the business server, for the business server to perform a verification that the second user is a verified user that is allowed to use the digital room card to unlock the smart door lock of the room, the verification comprising matching on the user information of the second user according to pre-stored business information, and send a second electronic certificate digital room card to the terminal of the second user after the matching verification succeeds.

2. The method according to claim 1, wherein the terminal of the first user obtains in advance the ~~first electronic certificate~~ digital room card sent by the business server through the following approach:

sending, to the business server, a business request carrying user information of the first user; and

receiving the first electronic certificate digital room card generated and delivered by the

business server based on the user information of the first user.

~~3. The method according to claim 1, wherein the user information comprises at least: a mobile phone number, a business account, or identity certificate information.~~

43. The method according to claim 31, wherein the obtaining the user information of the second user ~~corresponding to the sharing operation~~ through short-range communication specifically comprises:

determining a user in a short-range communication range as the second user corresponding to the sharing operation; and

obtaining user information of the second user through the short-range communication.

~~54. An electronic certificate transmission method, performed by a business server, for transmitting a digital room card associated with a first user to a terminal of a second user comprising:~~

receiving, ~~by a business server~~from a terminal of the first user, a verification request carrying an identifier information of the digital room card and sent by a first user, wherein the verification request carries at least user information of ~~a the~~ second user, wherein the digital room card is sent by the business server to the terminal of the first user in advance and enables to unlock a smart door lock of a corresponding room, and wherein the user information of the second user is obtained by the terminal of the first user through a short-range communication ~~between a first terminal of the first user and a second~~with the terminal of the second user, wherein the short-range communication is triggered by an sharing operation conducted by the first user on the first terminal device and comprises near field communication, Bluetooth communication, radio frequency identification communication, or infrared communication and the user information of the second user comprises a mobile phone number, a business account, or identity certificate information;

performing a verification that the second user is a verified user that is allowed to use the digital room card to unlock the smart door lock of the room, the verification comprising matching on the user information of the second user according to pre-stored business information; and

when the verification succeeds, ~~determining a second electronic certificate~~the digital room card identified according to the identifier information carried in the verification request and sending the ~~second electronic certificate~~digital room card to the terminal of the second

user.

~~65. The method according to claim 54, wherein the performing the verification that the second user is the verified user that is allowed to use the digital room card to unlock the smart door lock of the room~~verification on the user information according to pre-stored business information~~ comprises:~~

~~—performing matching and verification on the user information of the second user according to user information included in the pre-stored business information, wherein~~

~~if the user information of the second user is consistent with the pre-stored user information, determining that the verification succeeds; and~~

~~if the user information of the second user is not consistent with the pre-stored user information, determining that the verification fails.~~

~~76. The method according to claim 54, wherein the sending the ~~electronic certificate~~digital room card to the terminal of the second user specifically comprises:~~

~~sending, when the user information of the second user comprises a mobile phone number, the ~~electronic certificate~~digital room card to the mobile phone number in a form of a short message; and~~

~~—sending, when the user information of the second user comprises a business account, the ~~electronic certificate~~ to the business account.~~

~~7. The method according to claim 4, wherein the sending of the digital room card to the terminal of the second user specifically comprises:~~

~~sending, when the user information of the second user comprises a business account, the digital room card to the business account~~

~~8. A computer program product for transmitting a digital room card, the computer program product comprising instructions, which, when the computer program is executed by a terminal device, cause the terminal device to carry out the method of any of claims 1 to 3.~~

~~9. A terminal device comprising a processor configured to carry out the method of any of claims 1 to 3.~~

~~10. A computer program product for transmitting a digital room card, the computer program~~

product comprising instructions, which, when the computer program is executed by a server, cause the server to carry out the method of any of claims 4 to 7.

11. A server comprising a processor configured to carry out the method of any of claims 4 to 7.

~~8. An electronic certificate transmission apparatus, comprising:~~

~~——an operation receiving module, configured to receive a sharing operation of a business service for a first electronic certificate, wherein the first electronic certificate is sent by a business server to a first user in advance;~~

~~——an information obtaining module, configured to obtain user information of a second user corresponding to the sharing operation through a short range communication between a first terminal of the first user and a second terminal of the second user, wherein the sharing operation is conducted by the first user on the first terminal device, and the short range communication is triggered by the sharing operation and comprises near field communication, Bluetooth communication, radio frequency identification communication, or infrared communication; and~~

~~——a sending module, configured to send the obtained user information and identifier information of the first electronic certificate to the business server, for the business server to perform matching on the user information according to pre-stored business information and send a second electronic certificate to the second user after the matching succeeds.~~

~~9. The apparatus according to claim 8, further comprising: an electronic certificate processing module, configured to send, to the business server, a business request carrying user information of the first user; and receive the first electronic certificate generated and delivered by the business server based on the user information of the first user.~~

~~10. The apparatus according to claim 8, wherein the user information comprises at least: a mobile phone number, a business account, or identity certificate information.~~

~~11. The apparatus according to claim 10, wherein the information obtaining module determines a user in a short range communication range as the second user corresponding to the sharing operation; and obtains user information of the second user through the short range communication.~~

~~12. An electronic certificate transmission apparatus, comprising:~~

~~—— a request receiving module, configured to receive a verification request sent by a first user, wherein the verification request carries at least user information of a second user, and wherein the user information of the second user is obtained through a short range communication between a first terminal of the first user and a second terminal of the second user, the short range communication is triggered by an sharing operation conducted by the first user on the first terminal device and comprises near field communication, Bluetooth communication, radio frequency identification communication, or infrared communication;~~

~~a verification module, configured to perform verification on the user information according to pre-stored business information; and~~

~~—— a certificate sending module, configured to: when the verification succeeds, determine a second electronic certificate according to identifier information carried in the verification request and send the second electronic certificate to the second user.~~

~~13. The apparatus according to claim 12, wherein the verification module performs matching and verification on the user information of the second user according to user information included in the pre-stored business information, wherein if the user information of the second user is consistent with the pre-stored user information, the verification succeeds; and if the user information of the second user is not consistent with the pre-stored user information, the verification fails.~~

~~14. The apparatus according to claim 12, wherein the certificate sending module sends, when the user information of the second user comprises a mobile phone number, the electronic certificate to the mobile phone number in a form of a short message; and~~

~~—— sends, when the user information of the second user comprises a business account, the electronic certificate to the business account.~~

~~15. An electronic certificate transmission device, comprising: a processor and a memory, wherein~~

~~—— the memory stores an electronic certificate transmission program; and~~

~~—— the processor invokes the electronic certificate transmission program stored in the memory and performs the following operations:~~

~~—— receiving a sharing operation of a business service for a first electronic certificate;~~

~~wherein the first electronic certificate is sent by a business server to a first user in advance;~~
~~—— obtaining user information of a second user corresponding to the sharing operation through a short range communication between a first terminal of the first user and a second terminal of the second user, wherein the sharing operation is conducted by the first user on the first terminal device, and the short range communication is triggered by the sharing operation and comprises near field communication, Bluetooth communication, radio frequency identification communication, or infrared communication; and~~
~~—— sending the obtained user information and identifier information of the first electronic certificate to the business server, for the business server to perform matching on the user information according to pre stored business information and send a second electronic certificate to the second user after the matching succeeds.~~

~~16. An electronic certificate transmission device, comprising: a processor and a memory, wherein~~

~~—— the memory stores an electronic certificate transmission program; and~~
~~—— the processor invokes the electronic certificate transmission program stored in the memory and performs the following operations:~~
~~—— receiving a verification request sent by a first user, wherein the verification request carries at least user information of a second user, and wherein the user information of the second user is obtained through a short range communication between a first terminal of the first user and a second terminal of the second user, the short range communication is triggered by an sharing operation conducted by the first user on the first terminal device and comprises near field communication, Bluetooth communication, radio frequency identification communication, or infrared communication;~~
~~—— performing verification on the user information according to pre stored business information; and~~
~~—— when the verification succeeds, determining a second electronic certificate according to identifier information carried in the verification request and sending the second electronic certificate to the second user.~~