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Office de la Propriété Intellectuelle du Canada

Innovation, Science and Economic Development Canada
Canadian Intellectual Property Office

CA 3061224 C 2023/04/25

(11)(21) 3 061 224

(12) BREVET CANADIEN
CANADIAN PATENT

(13) C

(22) **Date de dépôt/Filing Date:** 2015/04/30

(41) **Mise à la disp. pub./Open to Public Insp.:** 2016/11/03

(45) **Date de délivrance/Issue Date:** 2023/04/25

(62) **Demande originale/Original Application:** 2 986 817

(51) **Cl.Int./Int.Cl.** ***G06Q 20/08*** (2012.01),
G06Q 20/38 (2012.01)

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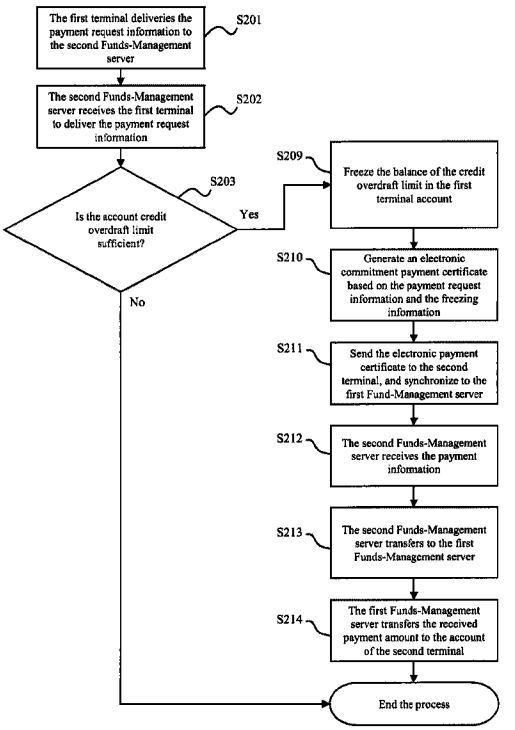
(54) **Titre : SYSTEME DE PAIEMENT REPOSANT SUR DIFFERENTS SERVEURS DE FONDS, METHODE DE PAIEMENT, DISPOSITIF ET SERVEUR ASSOCIES**

(54) **Title: PAYMENT SYSTEM BASED ON DIFFERENT FUNDS SERVERS, AND PAYMENT METHOD, DEVICE AND SERVER THEREFOR**



(57) **Abrégé/Abstract:**
Disclosed are a payment system based on different funds-management servers, and a payment method, device and funds-management server therefor, belonging to the field of e-commerce. The method comprises: a second funds-management server

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(57) **Abrégé(suite)/Abstract(continued):**
receiving payment request information sent by a first terminal (S202); comparing a first terminal account funds balance with a payment amount to determine whether an electronic commitment payment certificate can be created (S203); if yes, the second funds-management server freezing the funds balance within the first terminal account, the funds balance corresponding to the payment amount (S209); generating the electronic commitment payment certificate for the funds-management server to commit to pay funds according to an agreed condition, and sending the electronic commitment payment certificate to a second terminal to make a credit commitment payment on behalf of the first terminal. Using the method to supervise both parties in a transaction reduces financial risk, and ensures the interests of both parties in the transaction.

Abstract

Disclosed are a payment system based on different funds-management servers, and a payment method, device and funds-management server therefor, belonging to the field of e-commerce. The method comprises: a second funds-management server receiving payment request information sent by a first terminal (S202); comparing a first terminal account funds balance with a payment amount to determine whether an electronic commitment payment certificate can be created (S203); if yes, the second funds-management server freezing the funds balance within the first terminal account, the funds balance corresponding to the payment amount (S209); generating the electronic commitment payment certificate for the funds-management server to commit to pay funds according to an agreed condition, and sending the electronic commitment payment certificate to a second terminal to make a credit commitment payment on behalf of the first terminal. Using the method to supervise both parties in a transaction reduces financial risk, and ensures the interests of both parties in the transaction.

PAYMENT SYSTEM BASED ON DIFFERENT FUNDS SERVERS, AND PAYMENT METHOD, DEVICE AND SERVER THEREFOR

[1] Technical Field

[2] This invention refers to e-commerce field, especially, it is a cross funds server-based payment system and its payment method, device and server.

[3] Background Technology

[4] E-commerce has become increasingly widely used in a variety of commercial trade activities, the so-called e-commerce is a business operation model that based on the browser and server applications helps consumer realize online shopping, online transactions between merchants and online electronic payments, as well as a variety of business activities, trading activities, financial activities and related integrated service activities in the commercial trade, and in the Internet open network environment.

[5] At present, many banks or enterprises have provided an online payment service, allowing customers to operate computers, mobile phones and other terminal devices to achieve online payment. The way using online payment has provided customers with a great convenience. But in the process of network payment, the payment is conducted by directly using the existing funds in the debit cards or credit card, or allocating the credit limit of the existing funds or credit card to the third party as a guarantee for the transaction, once the merchant does not provide goods or service, or disputes occur, the financial security is difficult to be guaranteed. Thus, the need for new payment systems, methods, devices and servers at this stage to reduce the risk of user funds and to protect the interests of buyers and sellers.

[6] Summary of the invention

[7] In view of this, the technical problem to be solved by the present invention is to provide a cross-funds server based payment system and its payment method, device and server to reduce the risk of user's funds and guarantee the interests of buyers and sellers.

[8] The technical solution of the present invention to solve the above-mentioned technical problems is as follows:

[9] According to one aspect of the present invention, there is provided a payment system based on a different fund server, comprising at least one first terminal, at least one second

terminal, a second Funds-Management server connected to the first terminal, and the first Funds-Management server connected to the second terminal, the first Funds-Management server connected to the second fund server, wherein:

[10] The said first terminal for delivering payment request information including at least a payment amount to the said second Funds-Management server;

[11] The said second terminal for receiving a payment certificate of electronic commitment delivered by said first Funds-Management server;

[12] The method comprises: the second funds-management server receiving payment request information sent by the first terminal (S202); comparing the first terminal account funds balance with a payment amount to determine whether an electronic commitment payment certificate can be created (S203); if yes, the second funds-management server freezing the funds balance within the first terminal account, the funds balance corresponding to the payment amount (S209); generating the electronic commitment payment certificate for the funds-management server to commit to pay funds according to an agreed condition, and sending the electronic commitment payment certificate to the second terminal to make a credit commitment payment on behalf of the first terminal.

[13] The first Funds-Management server is configured to store the electronic payment document information transmitted by the second Fund-Management server and allocate the received payment amount to the electronic payment document information based on the electronic payment document information in the account of the second terminal.

[14] According to another aspect of the present invention, there is provided a network payment method based on a different fund server, the method comprises the steps of:

[15] The second Funds-Management server receives the payment request information delivered by the first terminal, wherein the payment request information includes at least the payment amount;

[16] Comparing the first terminal account fund balance and the payment amount to determine whether or not an electronic commitment payment certificate can be generated to make a credit commitment payment;

[17] If the second Funds-Management server is to freeze the amount corresponding to the payment amount in the first terminal account; generate an electronic commitment payment certificate promised by the second Funds-Management server to disburse the

funds according to the agreed conditions, And transmits the electronic commitment payment certificate information to the second terminal to make a credit commitment payment for the first terminal.

[18] According to another aspect of the present invention, there is provided a payment device based on a different capital server, the apparatus comprises a receiving module, a judging module and a processing module.

[19] A receiving module configured to receive payment request information transmitted by the first terminal, wherein the payment request information includes a payment amount;

[20] The judgement module is configured to determine whether or not to allow a credit commitment payment based on the first terminal account credit commitment and the payment amount;

[21] When the processing module is configured to alloy payment, freeze the said funds corresponding to the payment amount in the first terminal account; generating an electronic commitment payment certificate to transmit the said electronic commitment payment certificate information to the second terminal.

[22] According to another aspect of the present invention, there is provided a server based on a different capital server, the server comprises a payment device of the above-described technical solution.

[23] The present invention provides a payment system based on different fund server and its method, device and server, supervises the information of the buyers and sellers through the first Funds-Management server second Funds-Management server, and the regulatory function is merged into the bank or other institutions with payment ability; meanwhile, freezes the first terminal account funds balance, generates electronic payment certificates, reduces the risk of funds to protect the interests of buyers and sellers; this program makes full use of the risk control centre function of the credit centre of the first Funds-Management server and the second Funds-Management, facilitates the security of on-line transactions and guarantees transaction funds with a more optimized credit mechanism, provides credit media for both parties to the transaction, and reduces the risk of funds through the supervision of funds to protect the interests of both parties. In addition, it brings convenience to the customer by adding loan functions, which also enriches businesses of banks or other institutions with credit payment ability.

[24] Brief Description

[25] Figure 1 is a schematic diagram of the payment system based on a different fund server provided by an example of the present invention;

[26] Figure 2 is a flow chart of the payment method based on a different funds server provided by an example of the present invention;

[27] Figure 3 is a flow chart of the payment method based on a different fund server provided by an example of the present invention;

[28] Figure 4 is a flow chart of the payment method based on a different fund server provided by an example of the present invention;

[29] Figure 5 is a flow chart of the payment method based on a different fund server provided by an example of the present invention;

[30] Figure 6 is a flow chart of the payment method based on a different fund server provided by an example of the present invention;

[31]

[32] Figure 7 is a block diagram of a payment device based on a different capital server provided by an example of the present invention;

[33] Figure. 8 is a block diagram of a payment system based on a different capital server provided by a preferred example of the present invention.

[34] Description of the Preferred Examples

[35] The present invention will be described in further detail with reference to the accompanying drawings and the accompanying example, in which the technical problems, technical solutions and advantages to be solved by the present invention will become more apparent. It is to be understood that the specific examples described herein are merely illustrative of the invention and are not intended to limit the invention.

[36] Example 1

[37] As shown in Figure 1, an example of the present invention provides the payment system based on a different funds server, which includes at least one first terminal 10, at least one second terminal 20, a connected first Funds-Management server 30, a second Funds-Management server 40, a first Funds-Management server 30 and a second terminal 20 for operating the account of the second terminal 20, and the second Funds-Management server 40 is connected to the first terminal 10 for operating the account of the first terminal

10, wherein:

[38] The first terminal 10 is configured to transmit the payment request information to the second Fund-Management server 40, wherein the payment request information includes the payment amount.

[39] Specifically, the first terminal 10 is suitable for the payment party, such as a terminal used by a client, including mobile phone, personal computer, PAD, etc., the account information of the first terminal 10 is filled in when the customer registers and stored in the database of the Fund-Management service 40, the account information of the first terminal 10 includes customer ID, an account opening bank, account name, a bank account number, a credit balance, and so on, and may also include the customer's shipping address. The payment request information is the information such as the price (payment amount), the receipt address and the like after the customer purchases the specific goods / services, and the first terminal 10 according to the pre-set rule, transmits the packet to the second Fund-Management server 40 according to the price of the goods / services, the goods / services.

[40] The second Funds-Management server 40 is configured to receive the payment request information transmitted from the first terminal 10, based on the payment amount and the balance of the first terminal account funds, the first terminal account credit overdraft limit and the first terminal account credit loan limit to judge if the account has payment ability. If the judgement result is possession of payment ability, the funds corresponding to the payment amount in the balance of the first terminal account are frozen, and the electronic payment document is generated based on the payment request information and the freeze information, and then the electronic payment document is transmitted to the second terminal, and synchronized to the first Funds-Management server.

[41] The second terminal 20 is configured to receive the electronic payment document information transmitted from the second Funds-Management server 40.

[42] Specifically, the second terminal 20 is adapted to the recipient (merchant), and the second terminal includes but not limited to devices such as servers, and POS machines. Merchants include but not limited to manufacturers, agents, and logistics companies. The merchant information is also registered in the database of the first Fund-Management

server 30, and the merchant information includes, but is not limited to, merchant ID, merchant name, merchant bank, merchant account name, merchant bank account number, etc.

[43] The first Fund-Management server 30 is configured to receive and store the electronic payment certificate information transmitted from the second Fund-Management server 40 and to allocate the received payment amount to the account of the second terminal based on the electronic payment certificate.

[44] Wherein the electronic payment certificate information is the key information in the payment behaviour, it facilitates subsequent follow-ups at any time according to electronic payment certificate information, and verifies whether there is an exception in the payment behaviour.

[45] In the present example, more than one first terminals 10 are connected to the second Fund-Management server 40 via the Internet, and more than one secondary terminals 20 are connected to the first Fund-Management server 30 via the Internet, that is, the server where the second terminal 20 are at and the server where the first terminal 10 are located are both Fund-Management servers. The Fund-Management server can be a single servers in a physical sense, e.g., they can work in parallel, and the resources of the server are automatically allocated to realize the Fund-Management according to the different traffic. The Funds-Management server includes but not limited to servers in organizations such as banks, businesses, and so on. In practical applications, it can be seen as the same bank's cluster Fund-Management server, but it is not limited to banks, it also supports the flow of funds in other institutions in the Internet. The information of the first Funds-Management server 30 and the second Funds-Management server 40 is supervised, and the supervisory function is incorporated into a bank or other third party organization.

[46] Example 2

[47] As shown in Figure 2, an example of the present invention provides a payment method based on a different fund server for use in a Funds-Management server, which method comprises the steps of:

[48] S201, the first terminal transmits the payment request information to the second Fund-Management server, and the payment request information includes the payment amount.

[49] Specifically, the payment request information received by the second Fund-Management

server includes merchant information, product information and payment amount, and it may also include first terminal information (for an example, customer ID). Among them, the merchant information can be merchants' account number, and it can also be the only identification of the merchant information (such as merchant ID), to find the corresponding bank account information based on the unique identification of the business from the database by the second Funds-Management server. In the specific application, the account information of the second terminal should be kept confidential from the first terminal, so the merchant information should preferably be the merchant ID, and the second Fund-Management server inquires the merchant's receipt by using the corresponding relationship between the merchant ID and its receiving account. In other words, the first terminal only need to inform the second Funds-Management server to pay how much funds of which goods belongs to which merchant , the second Funds-Management server will be able to call out the merchant account to implement the appropriate payment operation.

[50] S202, the second Funds-Management server receives the first terminal to deliver the payment request information;

[51] S203, compare the balance of the first terminal account and the payment amount to determine whether to generate electronic commitment to pay the certificate to be paid; if allowed to pay, then enter the S209; otherwise, terminate the payment, and end the process.

[52] S209, the second Funds-Management server freezes the funds corresponding to the payment amount in the first terminal account.

[53] This Step only to freeze the funds balance to ensure that there is sufficient funds to complete the transaction, but not directly transfer to the merchant account, so as to ensure the interests of buyers and sellers, the successor can be the first terminal, the second terminal or the logistics company that sends the payment information to confirm the completion of the delivery; when the second Funds-Management server receives the payment information, the funds that equal to the payment funds shall be transferred to the first Funds-Management server.

[54] S210, the second Fund-Management server generates the electronic commitment payment certificate based on the payment request information and the freezing information, and

transmits the electronic commitment payment certificate to the second terminal;

[55] Specifically, since the payment request information is delivered by the buyer to the Funds-Management server through the first terminal operation, the payment information is objectively confirmed by the customer and authorized by the bank. The second Funds-Management server freezes the corresponding funds and generates an electronic commitment payment certificate based on the payment information, and the second terminal provides the corresponding merchandise / service according to the electronic commitment payment certificate.

[56] S211, the second funds server sends the electronic payment certificate to the second terminal and synchronizes to the first Funds-Management server;

[57] S212, the second Funds-Management server receives the payment information;

[58] S213, the second Fund-Management server transfers to the first Fund-Management server;

[59] S214, the first Fund-Management server transfers the received payment amount to the account of the second terminal.

[60] The payment method provided by the example of the present invention receives the payment request information of the first terminal through the second Funds-Management server, determines whether or not the payment is permitted based on the balance of the first terminal account funds and the payment amount, and by freezing the payment information of the first terminal account credit overdraft limit, and generating electronic commitment to pay the certificate, which can reduce the risk of funds and protect the interests of buyers and sellers.

[61] Example 3

[62] As shown in Figure 3, an example of the present invention provides a payment method based on a different fund server for use in a Funds-Management server, which method comprises the steps of:

[63] S201, the first terminal transmits the payment request information to the second Fund-Management server, and the payment request information includes the payment amount.

[64] S202, the second Fund-Management server receives the payment request information sent by the first terminal.

[65] Specifically, the payment request information received by the second Fund-Management

server includes merchant information, product information and payment amount, and it may also include first terminal information (for an example, customer ID). Among them, the merchant information can be merchants' account number, and it can also be the only identification of the merchant information (such as merchant ID), to find the corresponding bank account information based on the unique identification of the business from the database by the second Funds-Management server. In the specific application, the account information of the second terminal should be kept confidential from the first terminal, so the merchant information should preferably be the merchant ID, and the second Fund-Management server inquires the merchant's receipt by using the corresponding relationship between the merchant ID and its receiving account. In other words, the first terminal only need to inform the second Funds-Management server to pay how much funds of which goods belongs to which merchant , the second Funds-Management server will be able to call out the merchant account to implement the appropriate payment operation.

[66] S203, compare the first terminal account funds and the payment amount to determine whether to generate electronic commitment payment certificate for conducting commitment payment; if allowed to pay, enter S209; otherwise enter S204.

[67] S204, compare the first terminal account credit overdraft limit and the payment amount to determine whether to generate electronic commitment payment certificate for conducting commitment payment; if allowed to pay, enter S209; otherwise, end the process.

[68] Wherein the bank account of the first terminal may be the bank account that the first terminal informs the second Funds-Management server in the payment request information, or the second Funds-Management server may obtain the query from the database according to the first terminal ID.

[69] S209, the second Fund-Management server will freeze the balance of the funds or credit loan limit corresponding to the payment amount in the first terminal account;

[70] This Step only to freeze the amount of payment or credit overdraft limit to ensure that there is sufficient funds to complete the transaction, but not directly to the merchant account, so that the interests of buyers and sellers can be protected, the following steps can be completed by the first terminal, the second terminal or the logistics company

delivering the payment information to confirm the completion of the delivery. After the Funds-Management server receives the payment information, allocates the thawing funds or the same amount comparing with payment funds to the merchant account.

[71] S210, the second Funds-Management server generates the electronic commitment payment certificate according to the payment request information and the freezing information;

[72] Specifically, since the payment request information is sent by the buyer to the second Funds-Management server through the first terminal operation, the payment information is objectively confirmed by the customer and authorized by the bank. The second Funds-Management server freezes the corresponding amount of funds or credit overdraft, and generates an electronic commitment payment certificate based on the payment information, and the second terminal provides the corresponding merchandise / service according to the electronic commitment payment certificate.

[73] S211, transmits the electronic payment certificate to the second terminal, and synchronizes to the first Funds-Management server.

[74] S212, the second Funds-Management server receives the payment information;

[75] S213, the second Fund-Management server transfers funds to the first Fund-Management server;

[76] S214, the first Fund-Management server will transfer the payment amount received to the second terminal account.

[77] The payment method provided by the example of the present invention receives the payment request information of the first terminal through the Funds-Management server, judges whether or not the payment is made based on the first terminal account credit overdraft limit or the fund balance of the buyer, and generates an electronic commitment payment document for real-time monitoring, which can reduce the risk of funds and protect the interests of the buyers and the sellers.

[78] Example 4

[79] As shown in Figure 4, an example of the present invention provides a payment method based on a different fund server for use in a Funds-Management server, which method comprises the steps of:

[80] S201, the first terminal transmits the payment request information to the second Funds-

Management server, and the payment request information includes the payment amount.

[81] S202, the second Funds-Management server receives the first terminal to send the payment request information

[82] Specifically, the payment request information received by the funds-management server includes merchant information, merchandise information and payment amount, and may include first terminal information (e.g., customer ID). Among them, the merchant information can be directly the merchant's receiving account, you can also uniquely identify the merchant information (for an example, merchant ID), by the Funds-Management server based on the unique identification of the merchant from the database to find the corresponding bank account information. In the specific application, the account information of the second terminal should be kept confidential with respect to the first terminal, so the merchant information is preferably the merchant ID, and the Funds-Management server inquires the merchant's receivable account by using the correspondence relationship between the merchant ID and its receiving account. In other words, the first terminal only need to inform the Funds-Management server to pay how much funds of which goods belongs to which merchant , the Funds-Management server will be able to call out the merchant account to implement the appropriate payment operation.

[83] S203, the second Funds-Management server compares the first terminal account balance and the payment amount to determine whether or not an electronic commitment payment certificate can be generated, and the payment proceeds to S209 if the payment is allowed. Otherwise, the process proceeds to Step S204.

[84] Wherein the bank account number or the credit card account of the first terminal may be the first terminal informing the Funds-Management server in the payment request information, and the Funds-Management server may inquire from the database according to the first terminal ID.

[85] S204, compares the second Funds-Management server with the first terminal account credit loan limit and the payment amount to determine whether or not an electronic commitment payment certificate can be generated, and if allowed, the process proceeds to S209, otherwise the process proceeds to Step S204.

[86] S209, the second Funds-Management server to freeze the first terminal account in the

funds balance or credit loan limit;

[87] This Step only to freeze the funds balance or credit loan limit to ensure that there is sufficient funds to complete the transaction, but not directly to the merchant account, so as to ensure the interests of buyers and sellers, the successor can be by the first terminal, the second terminal or the logistics company sends the payment information to confirm the delivery is completed, the Fund-Management server receives the payment information, the thawed funds to the merchant account.

[88] S210, the second Funds-Management server generates the electronic commitment payment certificate according to the payment request information and the freezing information;

[89] Specifically, since the payment request information is sent by the buyer to the second Funds-Management server through the first terminal operation, the payment information is objectively confirmed by the customer and authorized by the bank. The second Funds-Management server will freeze the corresponding the funds balance or credit loan limit; meanwhile, it will generate an electronic commitment payment certificate based on the payment information, and the second terminal will provide the corresponding goods / services according to the electronic commitment payment certificate.

[90] S211, transmits the electronic payment certificate to the second terminal, and synchronizes to the first Funds-Management server.

[91] S212, the second Funds-Management server receives the payment information;

[92] S213, the second Fund-Management server transfers funds to the first Fund-Management server;

[93] S214, the first Fund-Management server transfers the received payment amount to the account of the second terminal.

[94] The payment method provided by the example of the present invention receives the payment request information of the first terminal through the second Funds-Management server, determines whether or not the payment is permitted based on the buyer's first terminal account funds balance and the first terminal account credit loan limit; meanwhile, by freezing the first terminal account payment amount, and generating electronic commitment to pay the certificate, which can reduce the risk of funds and protect the interests of the buyers and the sellers.

[95] Example 5

[96] As shown in Figure 5, an example of the present invention provides a payment method based on a different fund server for use in a Funds-Management server, which method comprises the steps of:

[97] S201, the first terminal transmits the payment request information to the second Fund-Management server, and the payment request information includes the payment amount.

[98] Specifically, the payment request information received by the second Fund-Management server includes merchant information, product information and payment amount, and it may also include first terminal information (for an example, customer ID). Among them, the merchant information can be directly merchants receiving account number, you can also uniquely identify the merchant information (such as business ID), and find the corresponding bank account information by Fund-Management server based on the unique identification of the merchant from the database. In the specific application, the account information of the second terminal should be kept confidential from the first terminal, so the merchant information should preferably be the merchant ID, and the second Fund-Management server inquires the merchant's receipt by using the corresponding relationship between the merchant ID and its receiving account. In other words, the first terminal only need to inform the second Funds-Management server to pay how much funds of which goods belongs to which merchant , the second Funds-Management server will be able to call out the merchant account to implement the appropriate payment operation.

[99] S202, the second Funds-Management server receives the first terminal to deliver the payment request information;

[100] S203, the first terminal account balance and the payment amount are compared to determine whether or not an electronic commitment payment document can be generated. If the payment is allowed, S209 is entered; otherwise the process proceeds to Step S204.

[101] S204, compare the account credit balance and the payment amount to determine whether or not an electronic commitment payment document can be generated; if the payment is allowed, the process proceeds to S209; otherwise the process proceeds to Step S205.

[102] S205, compare account credit loan limit and payment amount to determine whether to generate electronic commitment payment certificate for payment; if allowed to pay, then

enter S209; otherwise the end of the process.

[103] S209, the second Funds-Management server will freeze the balance of the funds or credit loan limit corresponding to the payment amount in the first terminal account;

[104] This Step only to freeze the payment amount or credit limit to ensure that there is sufficient funds to complete the transaction, but not directly to the merchant account, so that the interests of buyers and sellers can be protected, the following steps can be completed by the first terminal, the second terminal or the logistics company delivering the payment information to confirm the completion of the delivery. After the Funds-Management server receives the payment information, allocates the thawing funds to the merchant account.

[105] S210, the second Funds-Management server generates the electronic commitment payment certificate according to the payment request information and the freezing information;

[106] Specifically, since the payment request information is sent by the buyer to the second Funds-Management server through the first terminal operation, the payment information is objectively confirmed by the customer and authorized by the bank. The second Funds-Management server freezes the corresponding funds or credit loan limit and generates an electronic commitment payment certificate based on the payment information, and the second terminal provides the corresponding merchandise / service according to the electronic commitment payment certificate.

[107] S211, transmits the electronic payment certificate to the second terminal, and synchronizes to the first Funds-Management server.

[108] S212, the second Funds-Management server receives the payment information;

[109] S213, the second Fund-Management server transfers funds to the first Fund-Management server;

[110] S214, the first Fund-Management server transfers the received payment amount to the account of the second terminal.

[111] The payment method provided by the example of the present invention receives the payment request information of the first terminal through the Funds-Management server, the first terminal account funds amount, the first terminal account credit overdraft limit and the first terminal account credit loan limit will be based to determine whether to allow

payment, and by freezing the first terminal account payment amount, and generating electronic commitment payment certificate for conducting real-time monitoring, which can reduce the risk of funds to protect the interests of the buyers and the sellers.

[112] Example 6

[113] As shown in Figure 6, an example of the present invention provides a payment method based on a different fund server for use in a Funds-Management server, which method comprises the steps of:

[114] S201, the first terminal transmits the payment request information to the second funds-management server, and the payment request information includes the payment amount.

[115] S202, the second Fund-Management server receives the payment request information sent by the first terminal.

[116] Specifically, the payment request information received by the second Fund-Management server includes merchant information, product information and payment amount, and it may also include first terminal information (for an example, customer ID). Among them, the merchant information can be merchants' account number, and it can also be the only identification of the merchant information (such as merchant ID), to find the corresponding bank account information based on the unique identification of the business from the database by the second Funds-Management server. In the specific application, the account information of the second terminal should be kept confidential from the first terminal, so the merchant information should preferably be the merchant ID, and the second Fund-Management server inquires the merchant's receipt by using the corresponding relationship between the merchant ID and its receiving account. In other words, the first terminal only need to inform the second Funds-Management server to pay how much funds of which goods belongs to which merchant , the second Funds-Management server will be able to call out the merchant account to implement the appropriate payment operation.

[117] S203, the first terminal account balance and the payment amount are compared to determine whether or not an electronic commitment payment document can be generated. If the payment is allowed, S209 is entered; otherwise the process proceeds to Step S204.

[118] S204, compares the credit amount of the account and the payment amount to determine whether or not the electronic commitment payment certificate can be generated. If the

payment is allowed, the process proceeds to S209; otherwise the process proceeds to Step S205.

[119] S205, compare account credit overdraft limit and payment amount to determine whether to generate electronic commitment payment certificate for payment; if allowed to pay, then enter S209; otherwise, end the process.

[120] S209, the second Fund-Management server will freeze the balance or credit limit corresponding to the payment amount in the first terminal account;

[121] This Step only to freeze the amount of payment or credit limit to ensure that there is sufficient funds to complete the transaction, but not directly to the merchant account, so that the interests of buyers and sellers can be protected, the following steps can be completed by the first terminal, the second terminal or the logistics company delivering the payment information to confirm the completion of the delivery. After the Funds-Management server receives the payment information, allocates the thawing funds or the same amount comparing with payment funds to the merchant account.

[122] S210, the second Funds-Management server generates the electronic commitment payment certificate according to the payment request information and the freezing information;

[123] Specifically, since the payment request information is sent by the buyer to the second Funds-Management server through the first terminal operation, the payment information is objectively confirmed by the customer and authorized by the bank. The second Funds-Management server freezes the corresponding funds or credits, and generates an electronic commitment payment certificate based on the payment information, and the second terminal provides the corresponding merchandise / service according to the electronic commitment payment certificate.

[124] S211, transmits the electronic payment certificate to the second terminal, and synchronizes to the first Funds-Management server.

[125] S212, the second Funds-Management server receives the payment information;

[126] S213, the second Fund-Management server transfers funds to the first Fund-Management server;

[127] S214, the first Fund-Management server transfers the received payment amount to the account of the second terminal.

[128] The payment method provided by the example of the present invention receives the payment request information of the first terminal through the Fund-Management server, determines whether or not the payment is permitted based on the balance of the first terminal account funds and the payment amount, and by freezing the funds balance of the first terminal account or credit limit, and generating electronic commitment payment certificate, which can reduce the risk of funds and protect the interests of the buyers and the sellers.

[129] Example 7

[130] As shown in Figure 7, an example of the present invention provides a payment device including a receiving module 301, a judgement module 302, and a processing module 303, wherein:

[131] The receiving module 301 is configured to receive payment request information transmitted by the first terminal, wherein the payment request information includes a payment amount.

[132] Specifically, the payment request information received by the receiving module 301 includes merchant information, merchandise information and payment amount, and may as well include first terminal information such as a customer ID. Among them, the merchant information can be directly the merchants receiving account, you can also uniquely identify the merchant information (for an example, merchant ID). In the particular application, the account information of the second terminal should be kept confidential from the first terminal, so the merchant information should be the merchant ID, that is, the first terminal simply informs which merchandise of which merchant is paid by how much, then the device call out of the merchant account number to implement the corresponding payment operation.

[133] The judgement module 302 is configured to determine whether or not to allow payment based on the first terminal account fund balance or the credit overdraft limit or the credit loan limit and the payment amount.

[134] As a preferred scheme, the judgement module 302 is specifically configured to determine whether the balance of the funds of the first terminal account is greater than or equal to the payment amount, and if so, the payment is allowed; Whether the amount is greater than or equal to the payment amount, if yes, then allow payment; otherwise to further

determine whether the first terminal account credit limit is greater than the payment amount, if it is allowed to pay, or not allowed to pay. In this way, in turn determine the ability to pay the first terminal account, you can save the payment cycle to protect the interests of the merchant. Wherein the bank account or the credit card account of the first terminal may be notified by the first terminal to the device in the payment request information, or the device may inquire from the database based on the first terminal information and obtain the funds corresponding to the first terminal account funds balance or credit limit. Only in the first terminal account of the funds balance or credit limit greater than or equal to the payment amount, it means that customers have the ability to pay behaviour, this time to allow payment behaviour. When using a Fund-Management server to obtain a bank account or credit card account based on customer information, a customer may have multiple accounts, and a mixed payment method may also be used.

[135] The processing module 303 is configured to freeze the balance of the funds corresponding to the payment amount in the first terminal account when the payment is allowed, and generate the electronic commitment payment certificate to transmit the electronic commitment payment certificate information to the second terminal.

[136] Preferably, the processing module 303 further includes a freezing unit 3031, a certificate generation unit 3032, and a synchronization unit 3033, wherein:

[137] The freezing unit 3031 is configured to freeze the funds corresponding to the payment amount in the first terminal account when payment is allowed,

[138] The certificate generation unit 3032 is configured to generate an electronic commitment payment document;

[139] The synchronization unit 3033 is configured to transmit the electronic commitment payment certificate information to the second terminal.

[140] In addition, the processing module 303 may include a debit unit, which is configured to receive the payment information, and allocate the funds equal to the payment amount to the first Funds-Management server.

[141] It is to be noted that the technical features of the above-described method examples 2 and 3 are applicable in the present apparatus and are not repeated here.

[142] In addition, the present invention provides a Funds-Management server including a payment device in the fourth example, which is not repeated here.

[143] According to the example of the present invention, the payment device and the Funds-Management server receives the payment request information through the first terminal, and determines whether or not to allow to make payment based on the buyer's first terminal account balance; meanwhile, by freezing the funds balance of the first terminal account or credit limit and generating electronic commitment payment certificate, which can reduce the risk of funds and protect the interests of the buyers and the sellers. In addition, by increasing the loan function, not only to facilitate the buyer, but also greatly enriched the bank or other institutions with credit ability to pay the business.

[144] Example 8

[145] As shown in Figure 8, a preferred example of the present invention provides a payment system based on a different funds server, which includes a first terminal 10, a second terminal 20, and a Funds-Management server 30, wherein:

[146] The first terminal 10 includes a payment request module 101 configured to deliver payment request information to the Funds-Management server 30, wherein the payment request information includes merchant information, merchandise information, and payment amount.

[147] The second terminal 20 includes a certificate receiving module 201 and a certificate updating module 202, wherein the certificate receiving module 201 is configured to receive the electronic commitment payment certificate sent by the fund managing server 30.

[148] The Fund-Management server 30 includes a receiving module 301, a judgement module 302, and a processing module 303, wherein:

[149] The receiving module 301 is configured to receive payment request information transmitted by the first terminal;

[150] The judgement module 302 is configured to determine whether or not a credit commitment payment is permitted based on the balance of the first terminal account funds and the payment amount;

[151] As a preferred example, the judgement module 302 is configured to determine whether the balance of the first terminal account is greater than or equal to the amount of the payment, and if so, the payment is allowed; Greater than or equal to the payment amount, if yes, then allow payment, or to further determine whether the first terminal account

credit is greater than or equal to the payment amount, if so, allow credit commitment to pay.

[152] The processing module 303 is configured to freeze the credit amount or the amount of funds corresponding to the payment amount in the first terminal account when the credit commitment payment is allowed to be generated; generate the electronic commitment payment certificate, and send the electronic commitment payment certificate information to the second terminal.

[153] As a preferred example, the receiving module 301 of the Funds-Management server 30 is also provided to receive the payment information; the processing module 303 also includes a sectioning module, which is configured to receive the payment information, then assigned to the account of the second terminal.

[154] Specifically, since the payment request information is sent by the buyer to the Funds-Management server 30 through the first terminal 10, the payment information is objectively confirmed by the first terminal 10 and authorized by the bank to pay. The Fund-Management server 30 freezes the corresponding funds or credit limit and generates an electronic commitment payment certificate based on the payment information, and the second terminal 20 provides the corresponding merchandise / service based on the electronic commitment payment certificate.

[155] The general technicians of this field can understand and implement all or parts of steps in the aforesaid examples that can complete the procedure by controlling relevant hardware, and the said procedure can be stored in a readable storage media of a computer such as ROM/RAM, disk and light disk.

[156] Industrial Utility

[157] The preferred examples of the present invention have been described above with reference to the accompanying drawings, which are not to limit the scope of the present invention. It will be apparent to those skilled in the field that various modifications, equivalents, and improvements may be made without departing from the scope and spirit of the invention.

[158] The present invention provides a payment system based on different fund server and its method, device and server, supervises the information of the buyers and sellers through the first Funds-Management server second Funds-Management server, and the regulatory function is merged into the bank or other institutions with payment ability; meanwhile,

freezes the first terminal account funds balance, generates electronic payment certificates, reduces the risk of funds to protect the interests of buyers and sellers; this program makes full use of the risk control centre function of the credit centre of the first Funds-Management server and the second Funds-Management, facilitates the security of on-line transactions and guarantees transaction funds with a more optimized credit mechanism, provides credit media for both parties to the transaction, and reduces the risk of funds through the supervision of funds to protect the interests of both parties. In addition, it brings convenience to the customer by adding loan functions, which also enriches businesses of banks or other institutions with credit payment ability.

Claims:

1. A computer system for an e-commerce transaction including a payment from a payor to a merchant payee in exchange for delivery of goods or services, the system comprising:

a funds-management server configured to:

receive a payment request specifying a payment information from a payor terminal associated with the payor, wherein the payment information includes at least payee information, product information, and payment amount;

compare the payment amount to a balance of a payor terminal account to determine whether an electronic commitment payment certificate can be generated;

if the payment amount is less than or equal to the balance of the payor terminal account, freeze an amount in the payor terminal account equal to the payment amount and generate the electronic commitment payment certificate based on the freezing and the payment information; and

send the electronic commitment payment certificate to a payee terminal associated with the merchant payee to make a credit payment commitment to the payee terminal on behalf of the payor terminal; and

the payee terminal, comprising:

a computer-readable memory for storing processor-executable instructions; and

a computer processor, communicatively coupled to the memory, wherein upon execution of the processor-executable instructions, the processor is configured to:

receive the electronic commitment payment certificate sent by the funds-management server, enabling the merchant payee to deliver the goods or

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services to the payor securely according to the credit payment commitment in the electronic commitment payment certificate.

2. The computer system of claim 1, wherein the payee terminal is operatively connected the funds-management server.

3. The computer system of any one of claims 1 to 2, wherein the payee terminal is a Point-of-Sale System (POS) machine.

4. The computer system of any one of claims 1 to 2, wherein the payee terminal is a server.

5. The computer system of any one of claims 1 to 4, wherein upon execution of the processor-executable instructions, the processor is configured to receive the electronic commitment payment certificate sent by the funds-management server, wherein the funds-management server is a single physical server.

6. The computer system of any one of claims 1 to 4, wherein upon execution of the processor-executable instructions, the processor is configured to receive the electronic commitment payment certificate sent by the funds-management server, wherein the funds-management server is a server cluster of a bank.

7. The computer system of any one of claims 1 to 4, wherein upon execution of the processor-executable instructions, the processor is configured to receive the electronic commitment payment certificate sent by the funds-management server, wherein the funds-management server is a single physical server of a credit providing organization.

8. The computer system of any one of claims 1 to 4, wherein upon execution of the processor-executable instructions, the processor is configured to receive the electronic commitment payment certificate sent by the funds-management server, wherein the funds-management server is a server cluster of a credit providing organization.

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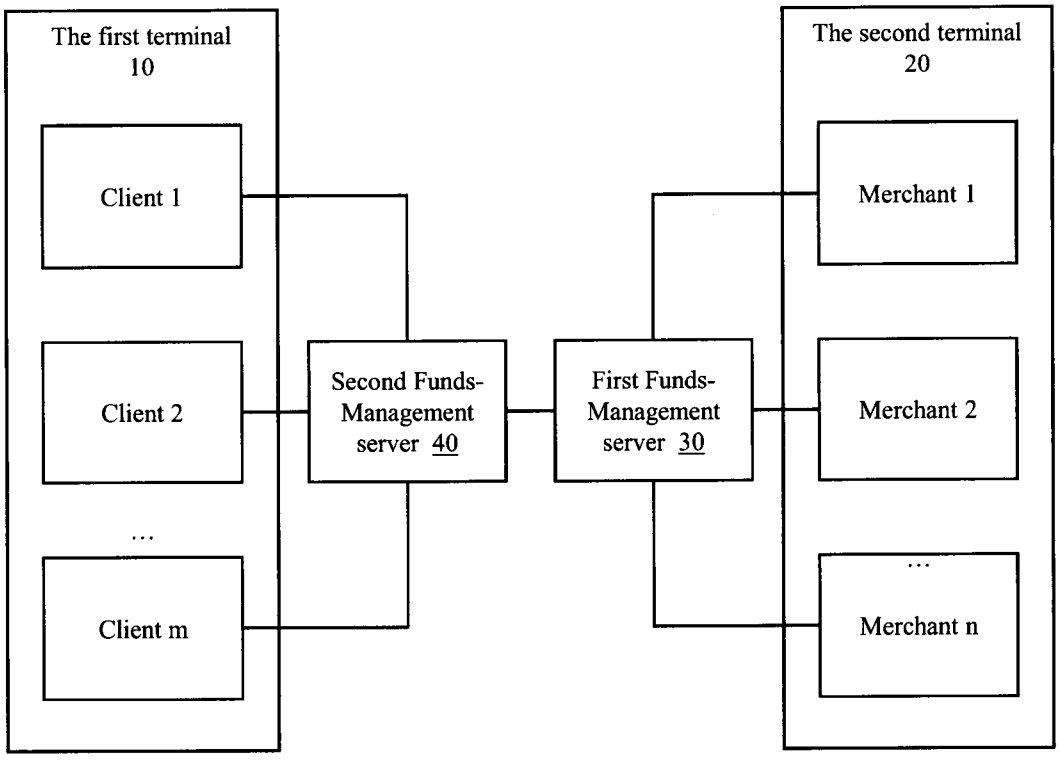

The first terminal
10
Client 1
Client 2
...
Client m
Second Funds-Management server 40
First Funds-Management server 30
The second terminal
20
Merchant 1
Merchant 2
...
Merchant n

Figure 1

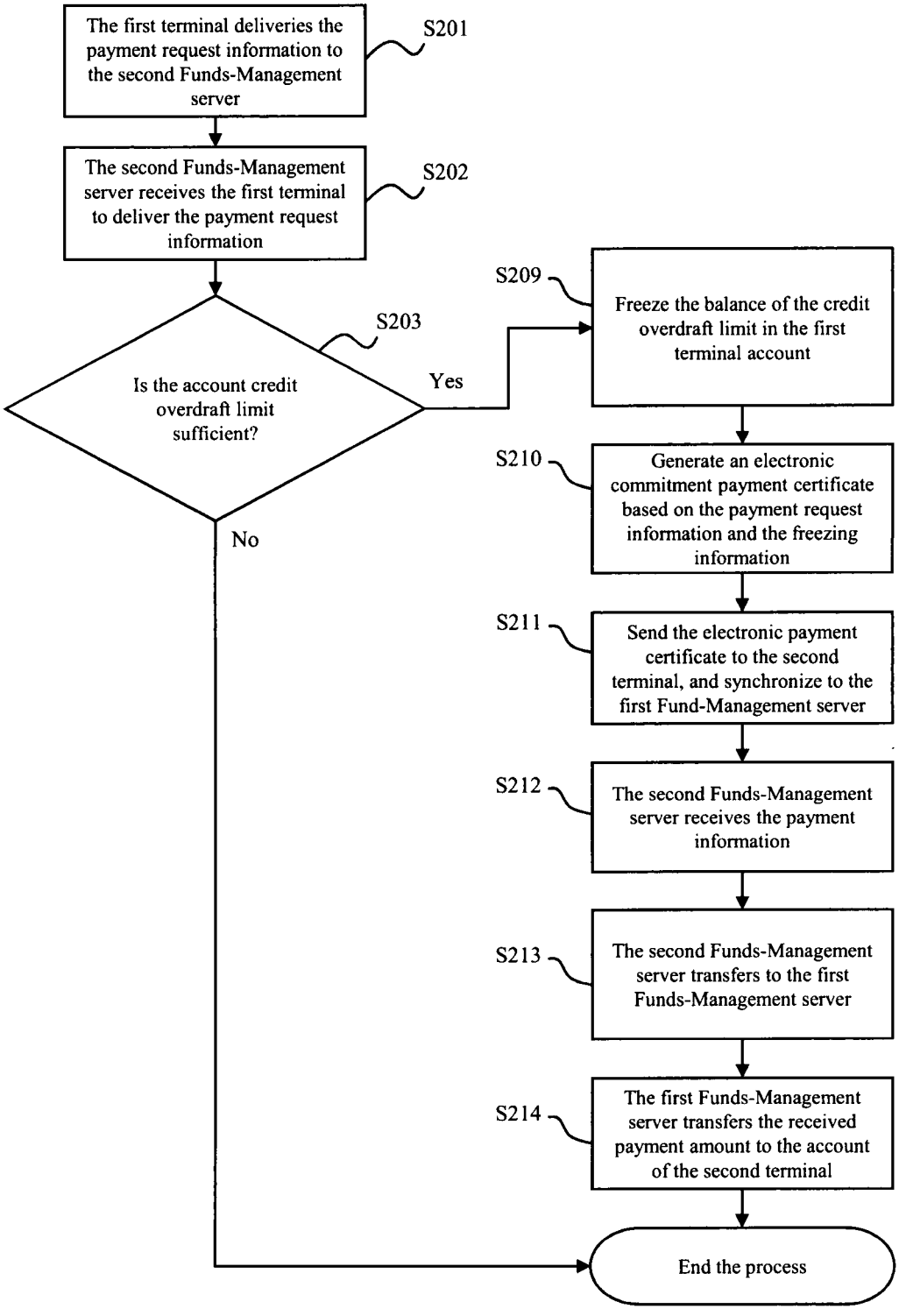

The first terminal deliveries the payment request information to the second Funds-Management server
S201
The second Funds-Management server receives the first terminal to deliver the payment request information
S202
Is the account credit overdraft limit sufficient?
S203
Yes
No
S209
Freeze the balance of the credit overdraft limit in the first terminal account
S210
Generate an electronic commitment payment certificate based on the payment request information and the freezing information
S211
Send the electronic payment certificate to the second terminal, and synchronize to the first Fund-Management server
S212
The second Funds-Management server receives the payment information
S213
The second Funds-Management server transfers to the first Funds-Management server
S214
The first Funds-Management server transfers the received payment amount to the account of the second terminal
End the process

Figure 2

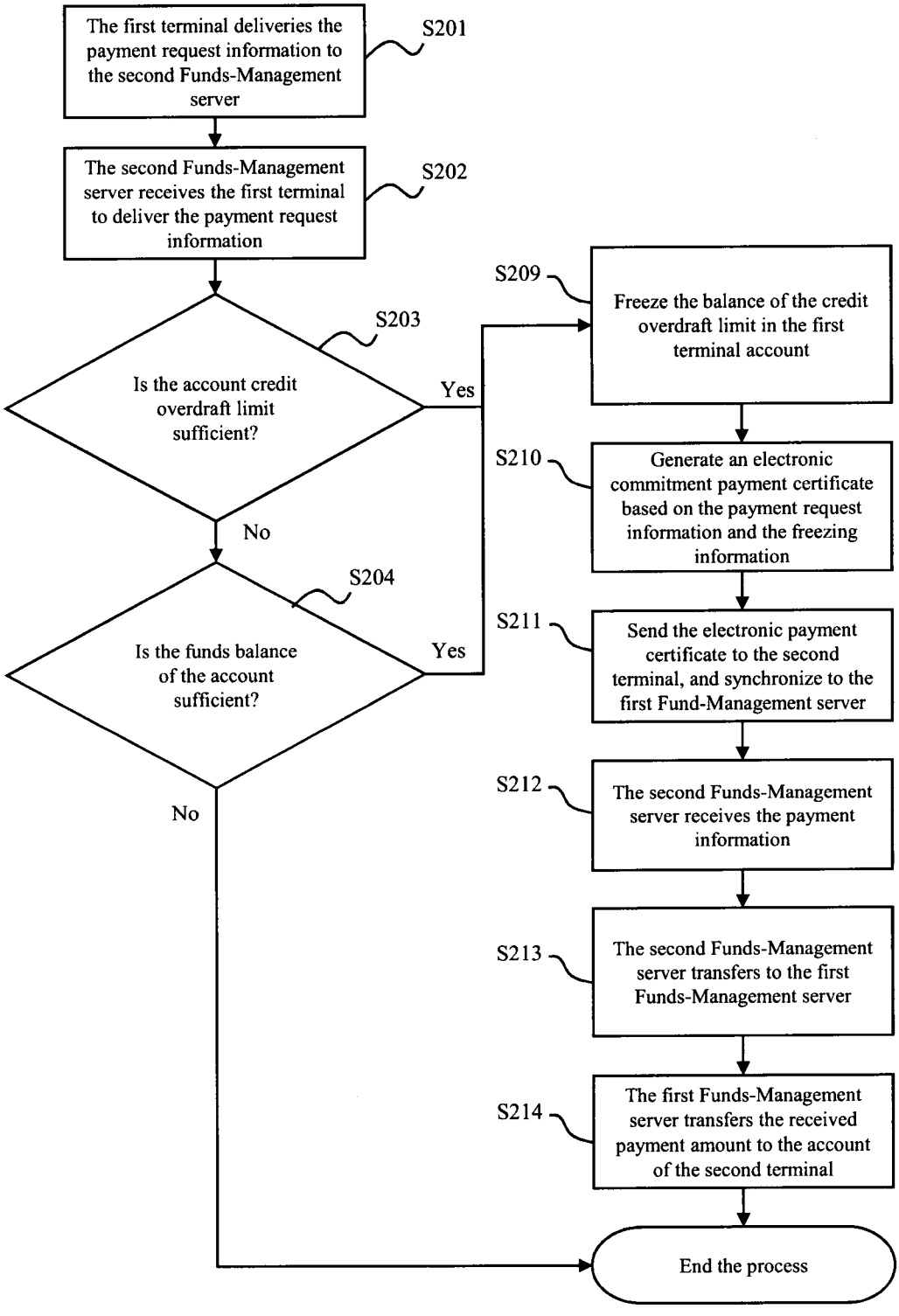

The first terminal deliveries the payment request information to the second Funds-Management server
S201
The second Funds-Management server receives the first terminal to deliver the payment request information
S202
S203
Is the account credit overdraft limit sufficient?
Yes
No
S204
Is the funds balance of the account sufficient?
Yes
No
S209
Freeze the balance of the credit overdraft limit in the first terminal account
S210
Generate an electronic commitment payment certificate based on the payment request information and the freezing information
S211
Send the electronic payment certificate to the second terminal, and synchronize to the first Fund-Management server
S212
The second Funds-Management server receives the payment information
S213
The second Funds-Management server transfers to the first Funds-Management server
S214
The first Funds-Management server transfers the received payment amount to the account of the second terminal
End the process

Figure 3

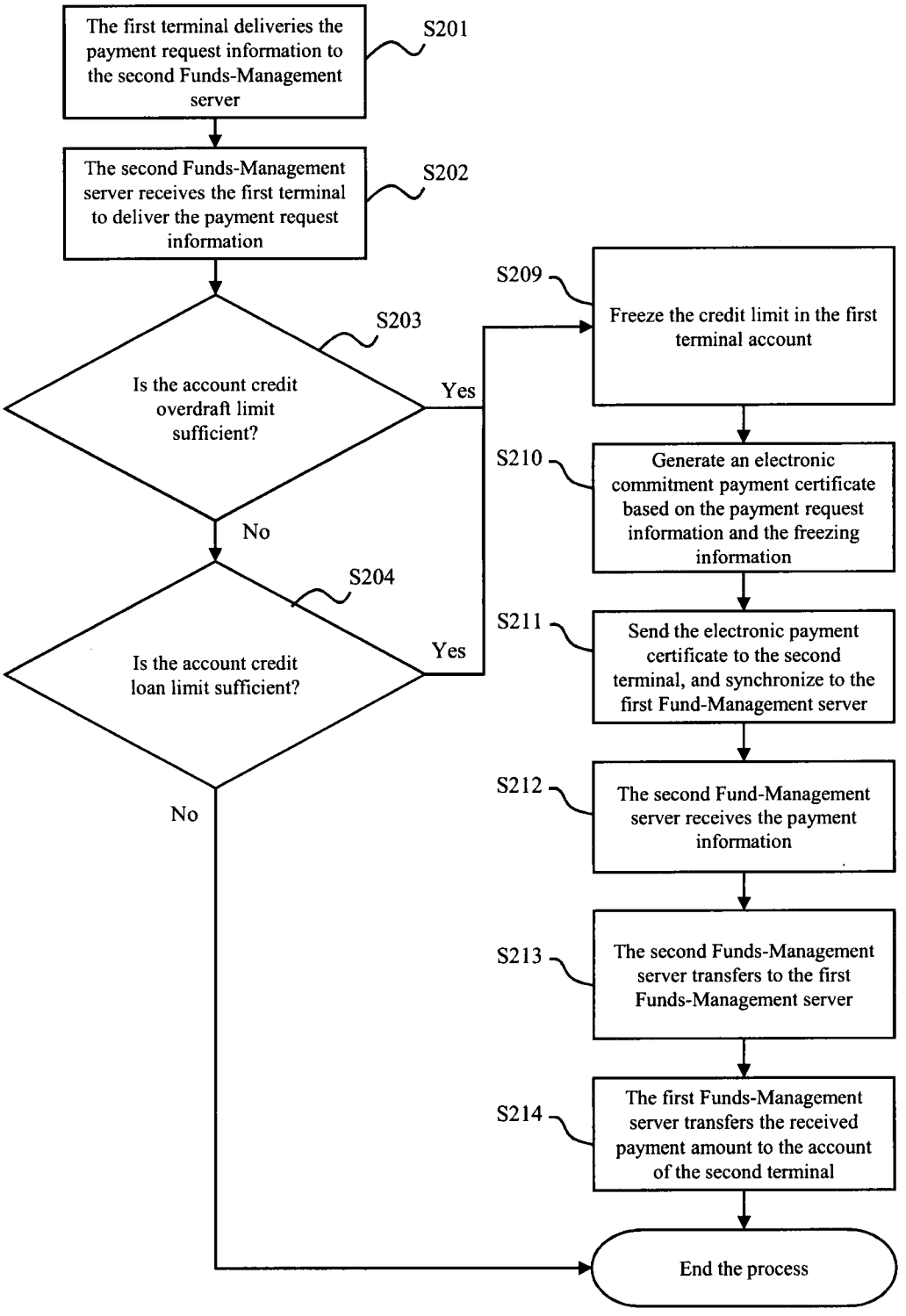

The first terminal deliveries the payment request information to the second Funds-Management server
S201
The second Funds-Management server receives the first terminal to deliver the payment request information
S202
Is the account credit overdraft limit sufficient?
S203
Yes
No
Is the account credit loan limit sufficient?
S204
Yes
No
S209
Freeze the credit limit in the first terminal account
S210
Generate an electronic commitment payment certificate based on the payment request information and the freezing information
S211
Send the electronic payment certificate to the second terminal, and synchronize to the first Fund-Management server
S212
The second Fund-Management server receives the payment information
S213
The second Funds-Management server transfers to the first Funds-Management server
S214
The first Funds-Management server transfers the received payment amount to the account of the second terminal
End the process

Figure 4

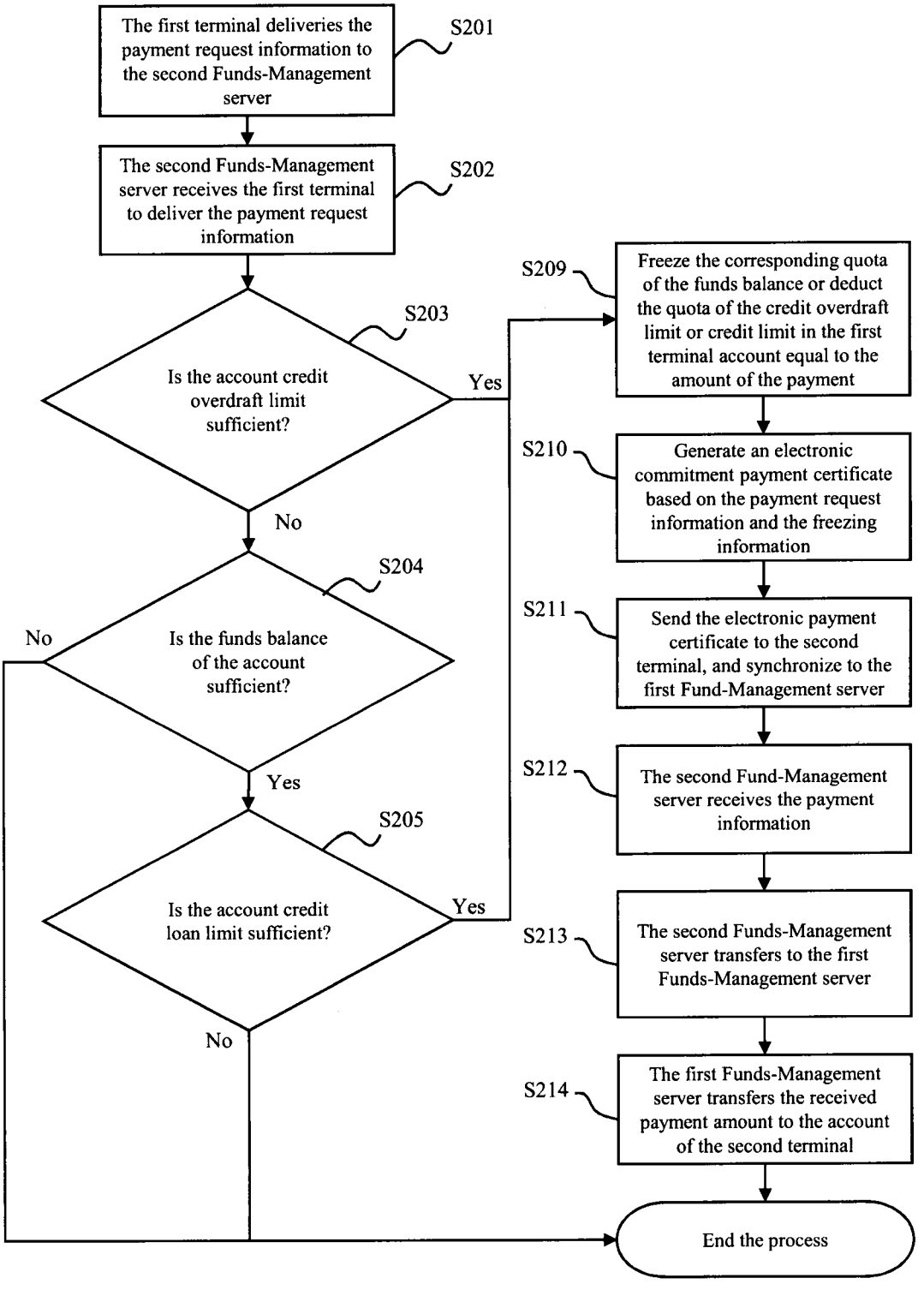

The first terminal deliveries the payment request information to the second Funds-Management server
S201
The second Funds-Management server receives the first terminal to deliver the payment request information
S202
S203
Is the account credit overdraft limit sufficient?
Yes
No
S204
Is the funds balance of the account sufficient?
No
Yes
S205
Is the account credit loan limit sufficient?
Yes
No
S209
Freeze the corresponding quota of the funds balance or deduct the quota of the credit overdraft limit or credit limit in the first terminal account equal to the amount of the payment
S210
Generate an electronic commitment payment certificate based on the payment request information and the freezing information
S211
Send the electronic payment certificate to the second terminal, and synchronize to the first Fund-Management server
S212
The second Fund-Management server receives the payment information
S213
The second Funds-Management server transfers to the first Funds-Management server
S214
The first Funds-Management server transfers the received payment amount to the account of the second terminal
End the process

Figure 5

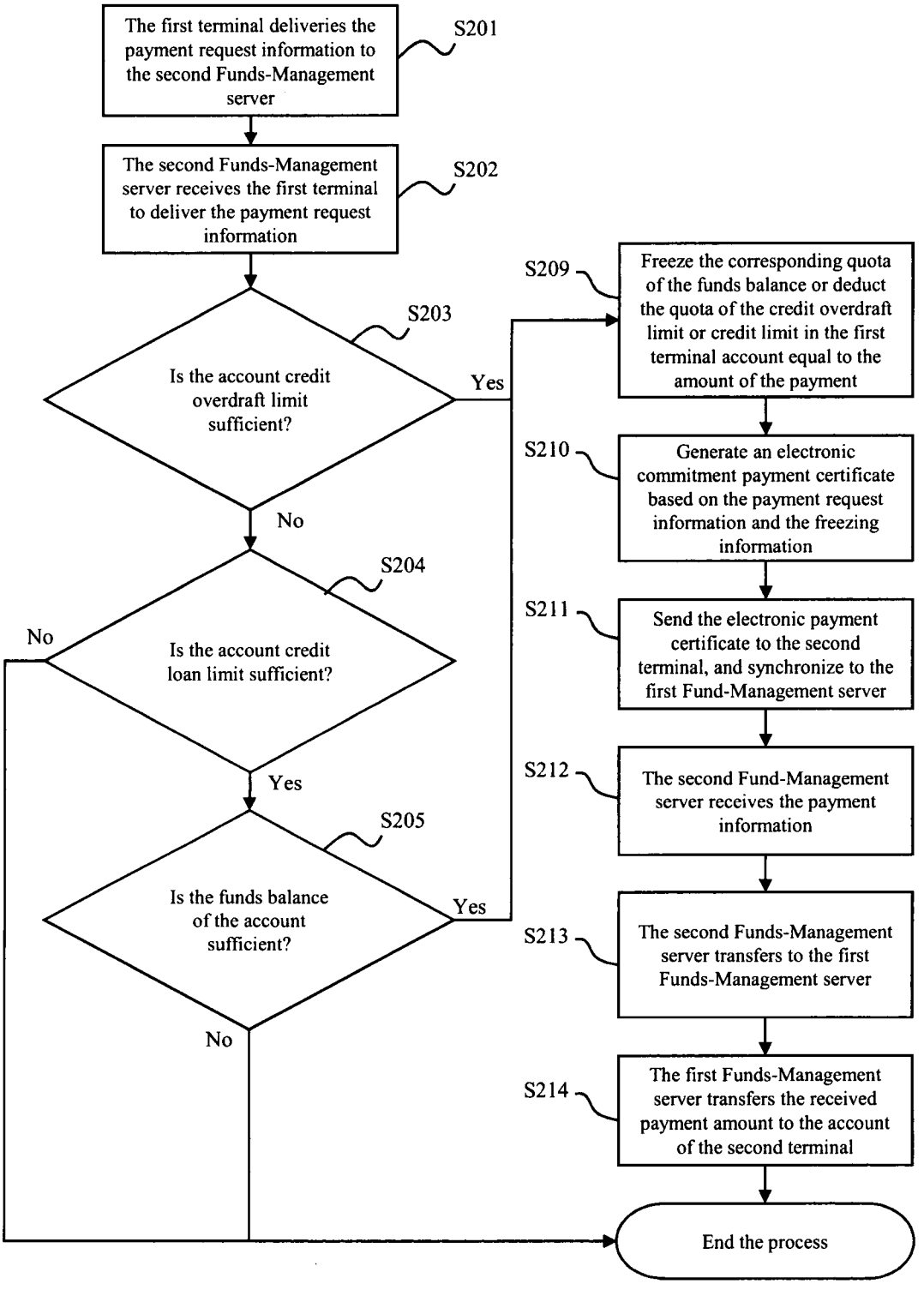

The first terminal deliveries the payment request information to the second Funds-Management server
S201
The second Funds-Management server receives the first terminal to deliver the payment request information
S202
S203
Is the account credit overdraft limit sufficient?
Yes
No
S204
Is the account credit loan limit sufficient?
No
Yes
S205
Is the funds balance of the account sufficient?
Yes
No
S209
Freeze the corresponding quota of the funds balance or deduct the quota of the credit overdraft limit or credit limit in the first terminal account equal to the amount of the payment
S210
Generate an electronic commitment payment certificate based on the payment request information and the freezing information
S211
Send the electronic payment certificate to the second terminal, and synchronize to the first Fund-Management server
S212
The second Fund-Management server receives the payment information
S213
The second Funds-Management server transfers to the first Funds-Management server
S214
The first Funds-Management server transfers the received payment amount to the account of the second terminal
End the process

Figure 6

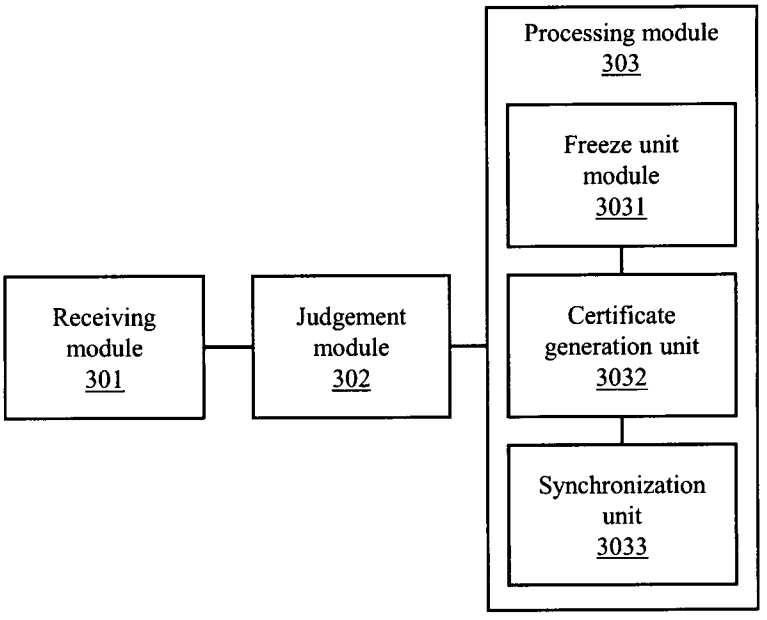


Figure 7

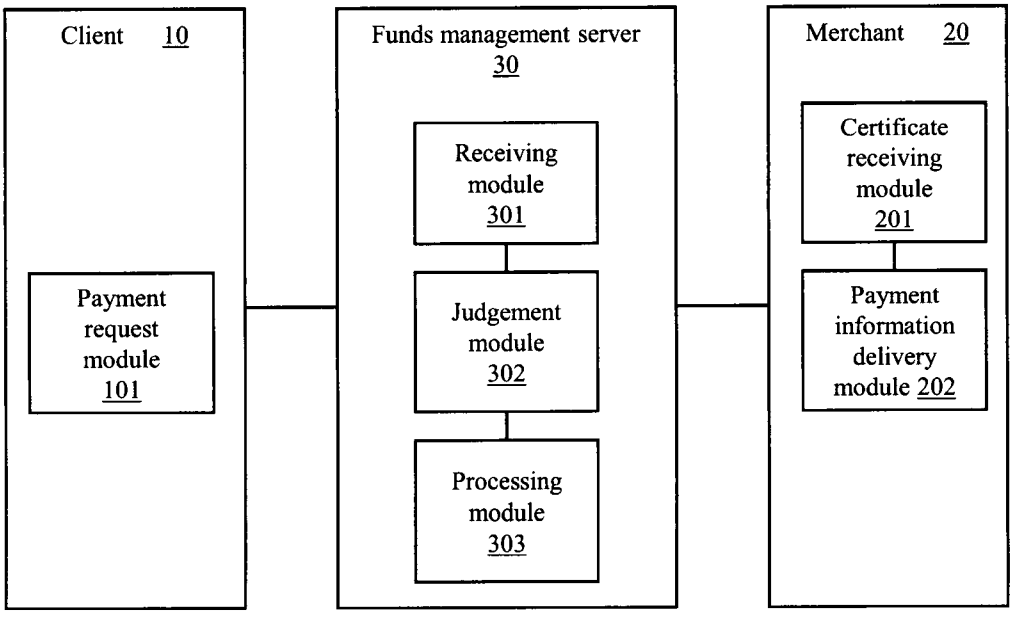
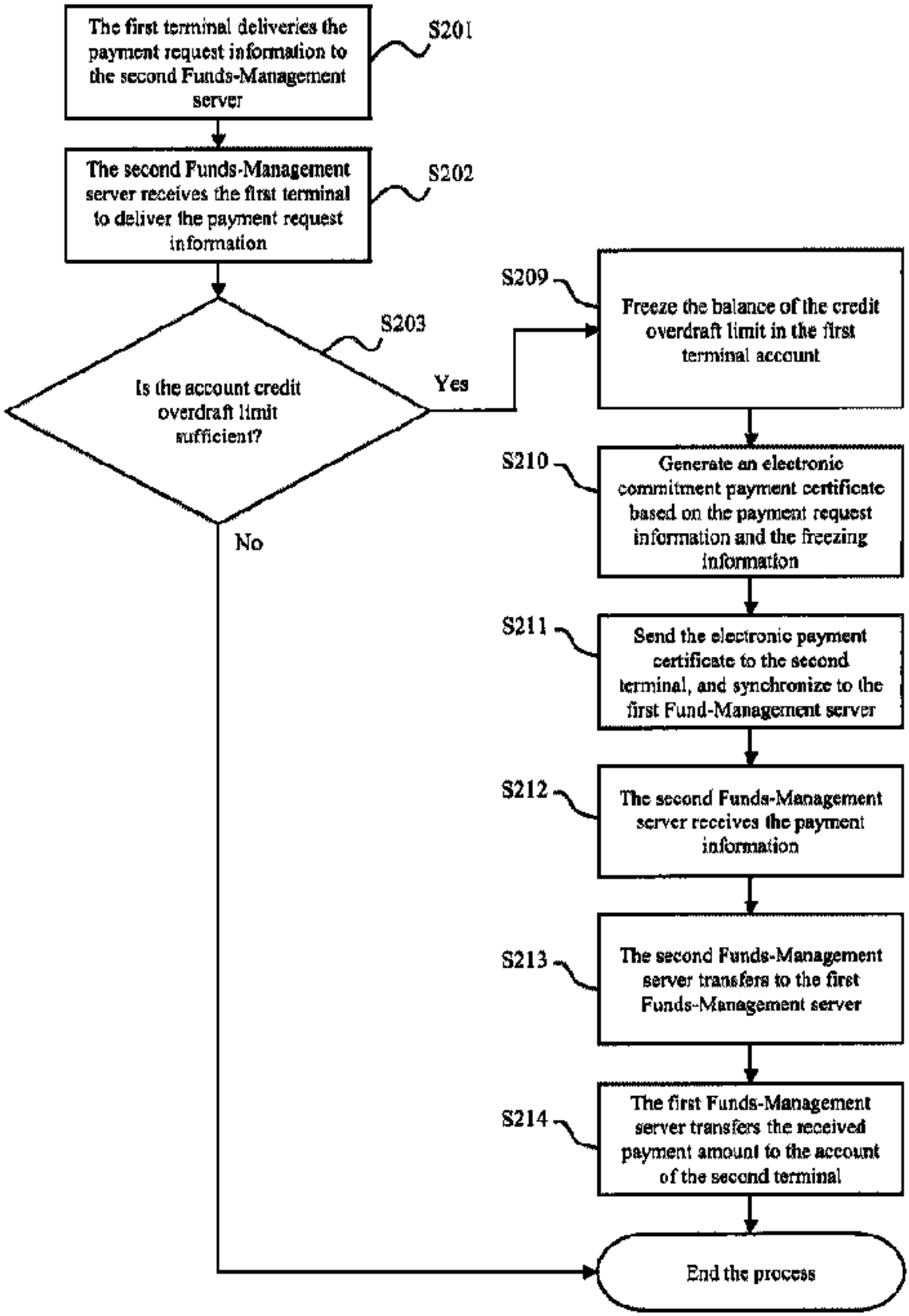


Figure 8


The first terminal deliveries the payment request information to the second Funds-Management server
S201
The second Funds-Management server receives the first terminal to deliver the payment request information
S202
Is the account credit overdraft limit sufficient?
S203
Yes
No
S209
Freeze the balance of the credit overdraft limit in the first terminal account
S210
Generate an electronic commitment payment certificate based on the payment request information and the freezing information
S211
Send the electronic payment certificate to the second terminal, and synchronize to the first Fund-Management server
S212
The second Funds-Management server receives the payment information
S213
The second Funds-Management server transfers to the first Funds-Management server
S214
The first Funds-Management server transfers the received payment amount to the account of the second terminal
End the process