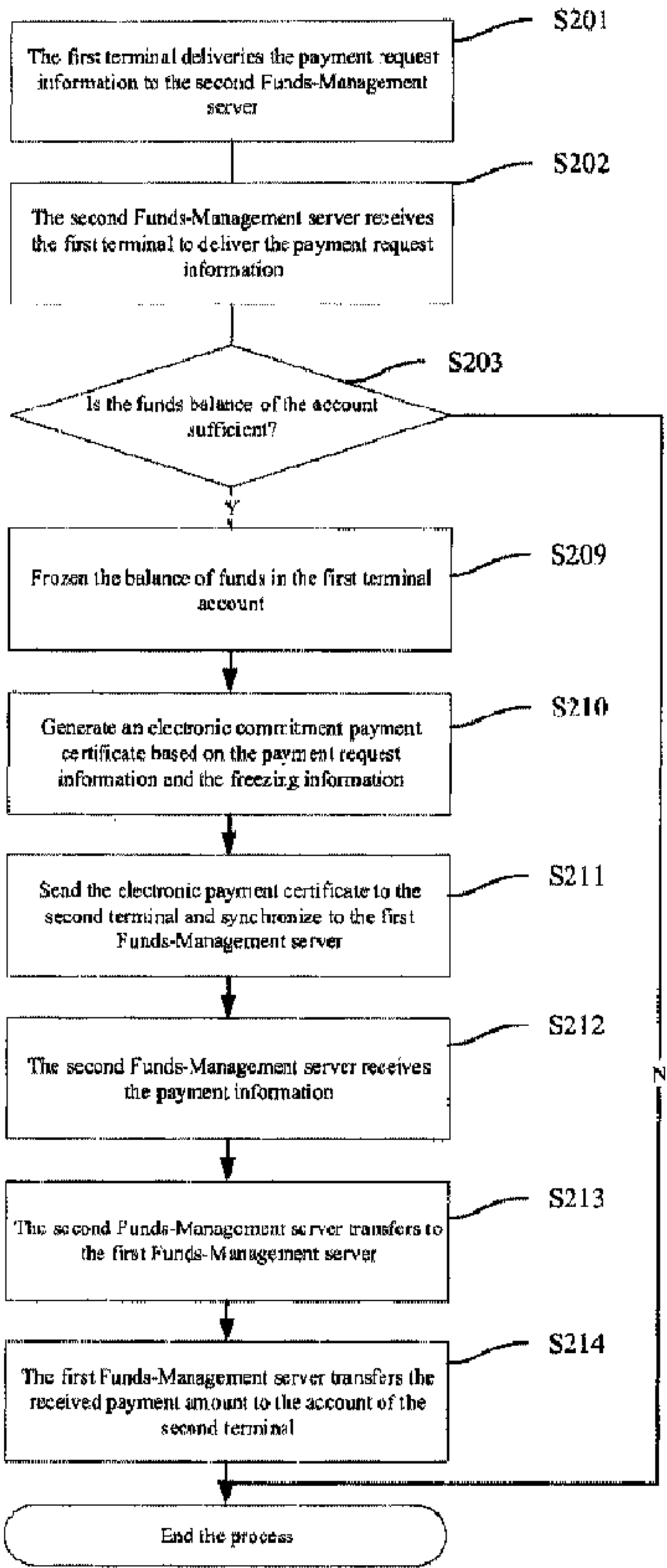




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(54) Titre : SYSTEME DE PAIEMENT BASE SUR DIFFERENTS SERVEURS DE FONDS ET PROCEDE DE PAIEMENT, DISPOSITIF ET SERVEUR ASSOCIES
(54) Title: PAYMENT SYSTEM BASED ON DIFFERENT FUNDS-MANAGEMENT SERVERS, AND PAYMENT METHOD, DEVICE AND SERVER THEREFOR



(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

(57) Abrégé(suite)/Abstract(continued):

receiving payment request information sent by a first terminal; comparing a first terminal account funds balance with a payment amount to determine whether an electronic commitment payment certificate can be created; if yes, the second Funds-Management server freezing the funds balance within the first terminal account, the funds balance corresponding to the payment amount; generating the electronic commitment payment certificate for the second 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, and synchronising to an information centre server. Using the technical solution of the present invention 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; comparing a first terminal account funds balance with a payment amount to determine whether an electronic commitment payment certificate can be created; if yes, the second Funds-Management server freezing the funds balance within the first terminal account, the funds balance corresponding to the payment amount; generating the electronic commitment payment certificate for the second 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, and synchronising to an information centre server. Using the technical solution of the present invention 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-MANAGEMENT SERVERS, AND
PAYMENT METHOD, DEVICE AND SERVER THEREFOR

[1] [Technical Field]

[2] This invention refers to e-commerce field, especially, it is a payment method, device and server based in different Funds-Management 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 a network of payment services, allowing customers to operate computers, mobile phones and other terminal equipment to achieve network payment, the way of the network payment provides 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 the above, the technical problem to be solved by the present invention is to provide a payment system, and its payment method, device and server based on the same Funds-Management server to reduce the risk of user funds, and to protect 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] A payment system based on a different Funds-Management server including at least one

first terminal, one second terminal, and an information centre server; a second Funds-Management server connected to the first terminal, and a first Funds-Management server connected to the second terminal, the first Funds-Management server and the second Funds-Management server are connected with the information centre server respectively, wherein:

- [10] The above-mentioned first terminal is to send payment request information including at least a payment amount to the second Funds-Management server;
- [11] The above-mentioned second terminal for receiving a payment certificate of electronic commitment delivered by said first Funds-Management server;
- [12] The second Funds-Management server is used for receiving payment request information delivered by the first terminal; comparing the first terminal account funds balance with a payment amount to determine whether an electronic commitment payment certificate can be created; if yes, the second Funds-Management server freezing the funds balance corresponding to the payment amount within the first terminal account; generating the electronic commitment payment certificate for the Funds-Management server to commit to pay funds according to an agreed condition, and delivering the electronic commitment payment certificate to the second terminal to make a credit commitment payment on behalf of the first terminal, and the electronic commitment payment certificate shall be synchronized to the information centre server;
- [13] The first Funds-Management server is configured to store the electronic commitment payment certificate information transmitted by the second Funds-Management server and allocate the received payment amount to the electronic commitment payment certificate information based on the electronic payment certificate information in the account of the second terminal.
- [14] The information centre server for storing and supervising the electronic commitment payment certificate information.
- [15] A network payment method based on the different Funds-Management servers is comprised of the following steps:
- [16] The second Funds-Management server receives the payment request information sent by the first terminal, wherein the payment request information includes at least the payment amount;

- [17] 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 payment;
- [18] If possible, the second Funds-Management server freezing the funds balance corresponding to the payment amount in the first terminal account; generating an electronic commitment payment certificate committed on agreed condition by the second Funds-Management server, the electronic commitment payment certificate information is delivered to the second terminal on behalf of the first terminal to make a credit commitment payment, and the electronic commitment payment certificate shall be synchronized to the information centre server.
- [19] A payment device based on a different Funds-Management server, which including a receiving module, a judging module and a processing module, wherein:
- [20] A receiving module configured to receive payment request information transmitted by the first terminal connected with the second Funds-Management server, wherein the payment request information includes a payment amount;
- [21] A judgement module is configured to determine whether the credit commitment is allowed to be paid based on the funds balance and the payment amount in the first terminal account;
- [22] When the processing module is configured to allow payment, freezing the funds balance corresponding to the payment amount in the first terminal account; generating an electronic commitment payment certificate and delivering it to the second terminal which is connected to the first Funds-Management server and synchronizing to the information centre server.
- [23] This invention provides a payment system and its method, device and server based on the different Funds-Management server , and supervises the information of the buyers and sellers through the first Funds-Management server, second Funds-Management server and the information centre server, and the regulatory function is merged into the bank or other institutions with payment ability; meanwhile, freezes the funds balance in the first terminal account, and generates electronic payment certificates and synchronizes it to the information centre server for real-time monitoring, reduces the risk of funds to protect the interests of the buyers and the sellers; this program makes full use of the risk control

centre function of the credit centre of the first Funds-Management server, second Funds-Management server and the information centre server, 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 cross Funds-Management server provided by the Example of the present invention;

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

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

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

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

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

[31] Figure 7 is a flow chart of the payment method based on different Funds-Management server provided by an example of the present invention;

[32] Figure 8 is a block diagram of a payment device based on different Funds-Management server provided by the Example of the present invention;

[33] [Description of the Preferred Examples]

[34] 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.

[35] Example 1

- [36] As shown in Figure 1, an example of the present invention provides a payment system based on different Funds-Management server, which includes at least one first terminal 10, at least one second terminal 20, a connected first Funds-Management server 30, the second Funds-Management server 40, the first Funds-Management server 30 and the 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 connecting the first terminal 10 of the account to operate, of which:
- [37] The first terminal 10 is configured to transmit the payment request information to the second Funds-Management server 40, wherein the payment request information includes the payment amount.
- [38] 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 second Funds-Management service 40 and or the information centre server 50, the account information of the first terminal 10 includes client 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 Funds-Management server 40 according to the price of the goods / services, the goods / services.
- [40] The second Funds-Management server 40 is used to receive the payment request information delivered from the first terminal 10, based on the payment amount and the funds balance of the first terminal account, the credit overdraft limit of first terminal account and the credit loan limit of first terminal account to judge if the account has payment ability. If the account has payment ability, the funds or credit corresponding to the payment amount in the funds balance of the first terminal account are frozen, and the electronic payment document is generated based on the payment request information and the frozen information, and then the electronic payment document is delivered to the second terminal, and synchronized to the first Funds-Management server and information centre.

- [40] The second terminal 20 is configured to receive the electronic payment certificate information transmitted from the second Funds-Management server 40.
- [41] Specifically, the second terminal 20 is adapted to the recipient (merchant), and the second terminal includes but is not limited to devices such as servers, POS machines and so on. Merchants include but not limited to manufacturers, agents, and logistics companies. The merchant information is also registered in the database of the first Funds-Management server 30 and (or) the information centre server 50, and the merchant information includes, but not limited to merchant ID, merchant name, merchant opening bank, merchant account name, and merchant bank account number.
- [42] The first Funds-Management server 30 is configured to receive and store the electronic payment certificate information transmitted from the second Funds-Management server 40 and to allocate the received payment amount to the account of the second terminal based on the electronic payment certificate.
- [43] The information centre server 50 is configured to receive the electronic payment certificate information transmitted from the second Funds-Management server 40.
- [44] Wherein, the electronic commitment payment certificate information is the key information in the payment behaviour, which is convenient to subsequent follow-up of the electronic payment certificate information at any time by backing up the information through information centre 50, and validates 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 Funds-Management server 40 via the Internet, and more than one secondary terminals 20 are connected to the first Funds-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 Funds-Management servers. The Funds-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 Funds-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 Funds-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 different Funds-Management 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 Funds-Management server, and the payment request information includes the payment amount.

[49] Specifically, the payment request information received by the second Funds-Management server includes merchant information, product information and payment amount, and may include first terminal information such as a client 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 Funds-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 freezes the payment amount to ensure that there is sufficient funds to complete the transaction subsequently, but not directly transfers to the merchant account, which guaranteed the interests of buyers and sellers, the first terminal, the second terminal or the logistics company can deliver the payment information subsequently to confirm the delivery is completed, the second Funds-Management server transfers the released funds to the first Funds-Management server after receiving the payment information.
- [54] S210, the second Funds-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-Management server sends the electronic payment certificate to the second terminal and synchronizes to the information centre server and the first Funds-Management server; Specifically, this step sends the generated electronic certificate information to the information centre server so that the information centre server performs subsequent tracking.
- [57] S212, the second Funds-Management server receives the payment information;
- [58] S213, the second Funds-Management server transfers to the first Funds-Management server;
- [59] S214, the first Funds-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 funds of the

first terminal account, and generating electronic commitment payment certificate and synchronizing it to the information centre server in order to make real-time monitoring, 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 different Funds-Management 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 Funds-Management server, and the payment request information includes the payment amount.

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

[65] Specifically, the payment request information received by the second Funds-Management server includes merchant information, product information and payment amount, and it may also include first terminal information (for an example, client 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 Funds-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 balance 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 can be informed to the second Funds-Management server by the first terminal in the payment request information, or can be queried from the database according to the first terminal ID by the second Funds-Management server.
- [69] S209, the second Funds-Management server freezes the funds or credit overdraft limit corresponding to the payment amount in the first terminal account;
- [70] This Step only to freeze the amount of funds 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 information centre server and the first Funds-Management server.
- [74] Specifically, this step sends the generated electronic certificate information to the information centre server so that the information centre server performs subsequent tracking.
- [75] S212, the second Funds-Management server receives the payment information;

- [76] S213, the second Funds-Management server transfers to the first Funds-Management server;
- [77] S214, the first Funds-Management server transfers the received payment amount to the account of the second terminal.
- [78] 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 funds of the first terminal account, and generating electronic commitment payment certificate and synchronizing it to the information centre server in order to make real-time monitoring, which can reduce the risk of funds and protect the interests of buyers and sellers.
- [79] Example 4
- [80] As shown in Figure 4, an example of the present invention provides a payment method based on different Funds-Management server for use in a Funds-Management server, which method comprises the steps of:
- [81] S201, the first terminal transmits the payment request information to the second Funds-Management server, and the payment request information includes the payment amount.
- [82] S202, the second Funds-Management server receives the payment request information sent by the first terminal;
- [83] 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., client 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.

- [84] 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.
- [85] Wherein the bank account of the first terminal can be informed to the Funds-Management server by the first terminal in the payment request, or can be queried from the database according to the first terminal ID by the Funds-Management server.
- [86] 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.
- [87] S209, the second Funds-Management server to freeze the first terminal account in the funds balance or credit loan limit;
- [88] This Step only to freeze the funds 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.
- [89] S210, the second Funds-Management server generates the electronic commitment payment certificate according to the payment request information and the freezing information;
- [90] 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.

- [91] S211, transmits the electronic payment certificate to the second terminal, and synchronizes to the information centre server and the first Funds-Management server. Specifically, this step sends the generated electronic certificate information to the information centre server so that the information centre server performs subsequent tracking.
- [92] S212, the second Funds-Management server receives the payment information;
- [93] S213, the second Funds-Management server transfers to the first Funds-Management server;
- [94] S214, the first Funds-Management server transfers the received payment amount to the account of the second terminal.
- [95] 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 funds balance or credit loan limit of the first terminal account, and by freezing the funds or limit of the first terminal account, and generating electronic commitment payment certificate and synchronizing it to the information centre server in order to make real-time monitoring, which can reduce the risk of funds and protect the interests of buyers and sellers.
- [96] Example 5
- [97] As shown in Figure 5, an example of the present invention provides a payment method based on different Funds-Management server for use in a Funds-Management server, which method comprises the steps of:
- [98] S201, the first terminal transmits the payment request information to the second Funds-Management server, and the payment request information includes the payment amount.
- [99] Specifically, the payment request information received by the second Funds-Management server includes merchant information, product information and payment amount, and may include first terminal information such as a client 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 Funds-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 Funds-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.

- [100] S202, the second Funds-Management server receives the first terminal to deliver the payment request information;
- [101] 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.
- [102] S204, compares the credit overdraft limit 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.
- [103] S205, compare the first terminal account credit loan limit and the amount of payment to determine whether to generate electronic commitment certificate to pay, if allowed, then enter S209, otherwise, to terminate the payment and the process.
- [104] S209, the second Funds-Management server freezes corresponding balance or credit limit equal to the payment amount in the first terminal account;
- [105] This Step only to freeze the funds 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.
- [106] S210, the second Funds-Management server generates the electronic commitment payment certificate according to the payment request information and the freezing information;
- [107] 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.

- [108] S211, transmits the electronic payment certificate to the second terminal, and synchronizes to the information centre server and the first Funds-Management server. Specifically, this step sends the generated electronic certificate information to the information centre server so that the information centre server performs subsequent tracking.
- [109] S212, the second Funds-Management server receives the payment information;
- [110] S213, the second Funds-Management server transfers to the first Funds-Management server;
- [111] S214, the first Funds-Management server transfers the received payment amount to the account of the second terminal.
- [112] 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 balance, 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 certificates and synchronizing it to the information centre server in order to make real-time monitoring, which can reduce the risk of funds to protect the interests of the buyers and the sellers.
- [113] Example 6
- [114] As shown in Figure 6, an example of the present invention provides a payment method based on different Funds-Management server for use in a Funds-Management server, which method comprises the steps of:
- [115] S201, the first terminal transmits the payment request information to the second Funds-Management server, and the payment request information includes the payment amount.
- [116] S202, the second Funds-Management server receives the payment request information

sent by the first terminal;

- [117] Specifically, the payment request information received by the second Funds-Management server includes merchant information, product information and payment amount, and it may also include first terminal information (for an example, client 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 Funds-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.
- [118] 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.
- [119] 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.
- [120] 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.
- [121] S209, the second Funds-Management server freezes corresponding balance or credit limit equal to the payment amount in the first terminal account;
- [122] This Step only to freeze funds 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.

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

[124] 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.

[125] S211, transmits the electronic payment certificate to the second terminal, and synchronizes to the information centre server and the first Funds-Management server. Specifically, this step sends the generated electronic certificate information to the information centre server so that the information centre server performs subsequent tracking.

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

[127] S213, the second Funds-Management server transfers to the first Funds-Management server;

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

[129] 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, 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 or credit overdraft limit of the first terminal account, and generating electronic commitment payment certificate and synchronizing it to the information centre server in order to make real-time monitoring, which can reduce the risk of funds and protect the interests of buyers

and sellers.

[130] Example 7

[131] 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:

[132] The receiving module 301 is configured to receive payment request information delivered by the first terminal which is connected to the second Funds-Management server, wherein the payment request information includes a payment amount.

[133] 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 (for an example, client 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 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, that is, the first terminal simply needs to inform the Funds-Management server to pay to which merchant's goods, the device will call out the merchant account to implement corresponding payment operation.

[134] 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.

[135] 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 credit limit is greater than the payment amount, if it is allowed to pay, or not allowed to pay. In this way, to determine the ability of paying of the first terminal account, you can save the payment cycle to protect the interests of businesses. Wherein the bank account of the first terminal may be informed to this device by the first terminal in the payment request information, or the device may inquire it from the database based on the first terminal information, and obtains the funds balance or the

credit limit of the corresponding first terminal account. 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 Funds-Management server to obtain a bank account or credit card account based on the Funds-Management server, a customer may have multiple accounts, and a mixed payment method may also be used.

- [136] When the processing module 303 is configured to allow payment, freezing the funds corresponding to the payment amount in the first terminal account; generating an electronic commitment payment certificate and delivering it to the second terminal which is connected to the second Funds-Management server and synchronizing to the information centre server.
- [137] Preferably, the processing module 303 further includes a freeze unit 3031, a certificate generation unit 3032, and a synchronization unit 3033, wherein:
- [138] The freezing unit 3031 is configured to freeze the funds corresponding to the payment amount in the first terminal account when payment is allowed,
- [139] The certificate generation unit 3032 is configured to generate an electronic commitment payment document;
- [140] The synchronization unit 3033 is configured to deliver the electronic commitment payment certificate information to the second terminal, and synchronizing to the information centre server.
- [141] In addition, the processing module 303 may include a transfer unit, configured to receive the payment information, synchronize the payment information to the information centre server, and allocate the frozen funds to the Funds-Management server.
- [142] 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.
- [143] In addition, the present invention provides a Funds-Management server including a payment device in the Example 7, which is not repeated here.
- [144] The payment device and server provided by the example of the present invention receives the payment request information of the first terminal, determines whether or not the payment is permitted based on the funds balance or credit loan limit of the first terminal account, and by freezing the funds or credit limit of the first terminal account, and

generating electronic commitment payment certificate and synchronizing it to the information centre server in order to make real-time monitoring, which can reduce the risk of funds and protect the interests of buyers and sellers. In addition, by increasing the loan function, which can not only to facilitate the buyer, but also to greatly enrich the bank or other institutions with credit ability to pay the business.

[145] Example 8

[146] As shown in Figure 8, a preferred payment method provided by the example of the present invention based on a different Funds-Management server, which includes a first terminal 10, a second terminal 20, a second Funds-Management server 40 connected to the first terminal 10, a Funds-Management server 20 connected to the Funds-Management server 30, and the information centre 50 connected to the first Funds-Management server 30 and second Funds-Management server 40 respectively, including:

[147] The information centre server 50 is used to store and supervise the electronic commitment payment certificate information.

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

[149] 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.

[150] The second Funds-Management server 40 includes a receiving module 301, a judgement module 302, and a processing module 303, wherein:

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

[152] 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;

[153] 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 loan limit is greater than or equal to the payment amount, if so, allow credit commitment to pay.

- [154] The processing module 303 is configured to freeze the funds amount or credit limit of the funds corresponding to the payment amount in the client account when the payment of credit commitment is allowed, and generate the electronic commitment payment certificate to deliver the electronic commitment payment certificate information to the second terminal and synchronize to the information centre server.
- [155] As a preferred example, the receiving module 301 of the Funds-Management server 30 is also responsible for receiving the payment information; the processing module 303 also includes a transferring module, which is configured to transfer equal funds to the account of the second terminal account after receiving the payment information.
- [156] 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 authorizes the bank to pay. The Funds-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.
- [157] 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.
- [158] 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.

Claims:

1. A method of resolving errors in a network of distributed financial transactions whereby:
 - a plurality of purchaser terminals is operably connected to a network of funds-management servers;
 - the network of funds-management servers is operably connected to at least one information center server;
 - at least one copy of each transaction is synchronized and stored at the information center server; and
 - upon detection of an error, the transactions in error are replaced by copies from the information center server.
2. The method of claim 1, whereby the synchronized transaction originates from at least one purchaser terminal.
3. The method of any one of claims 1-2, wherein the purchaser terminal includes a client device.
4. The method of claim 3, wherein the client device is a mobile phone.
5. The method of any one of claims 1-3, wherein the client device is a personal computer.
6. The method of any one of claims 1-2, whereby the transaction is stored in memory.
7. The method of any one of claims 1-2, whereby the transaction is stored on a hard disk.

8. The method of any one of claims 1-2, whereby the transaction is stored on non-volatile memory;
9. The method of any one of claims 1-2, whereby the transaction is stored in a database connected to the information center server.
10. The method of any one of claims 1-7, whereby the error is a missing transaction.
11. The method of any one of claims 1-7, whereby the error is a transaction entry that fails a checksum.
12. The method of any one of claims 1-7, whereby the error is initiated by a series of transactions that fail to balance.
13. The method of claim 1, wherein the funds-management server is a single physical server.
14. The method of claim 1, wherein the funds-management server is a cluster server of a bank.
15. The method of claim 1, wherein the funds-management server is a single physical server of a credit-capable organization.
16. The method of claim 1, wherein the funds-management server is a cluster server of a credit-capable organization.
17. The method of claim 1, wherein the information center server is a single physical server.
18. The method of claim 1, wherein the information center server is a cluster server of a bank.
19. The method of claim 1, wherein the information center server is a single physical server of a credit-capable organization.

20. The method of claim 1, wherein the information center server is a cluster server of a credit-capable organization.

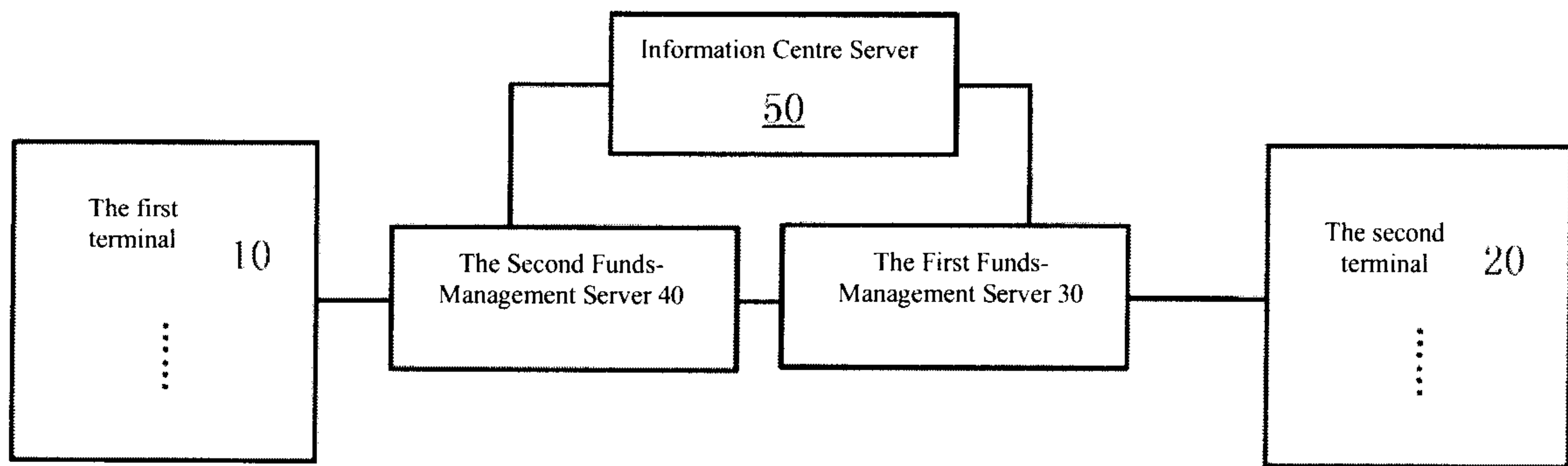


Figure 1

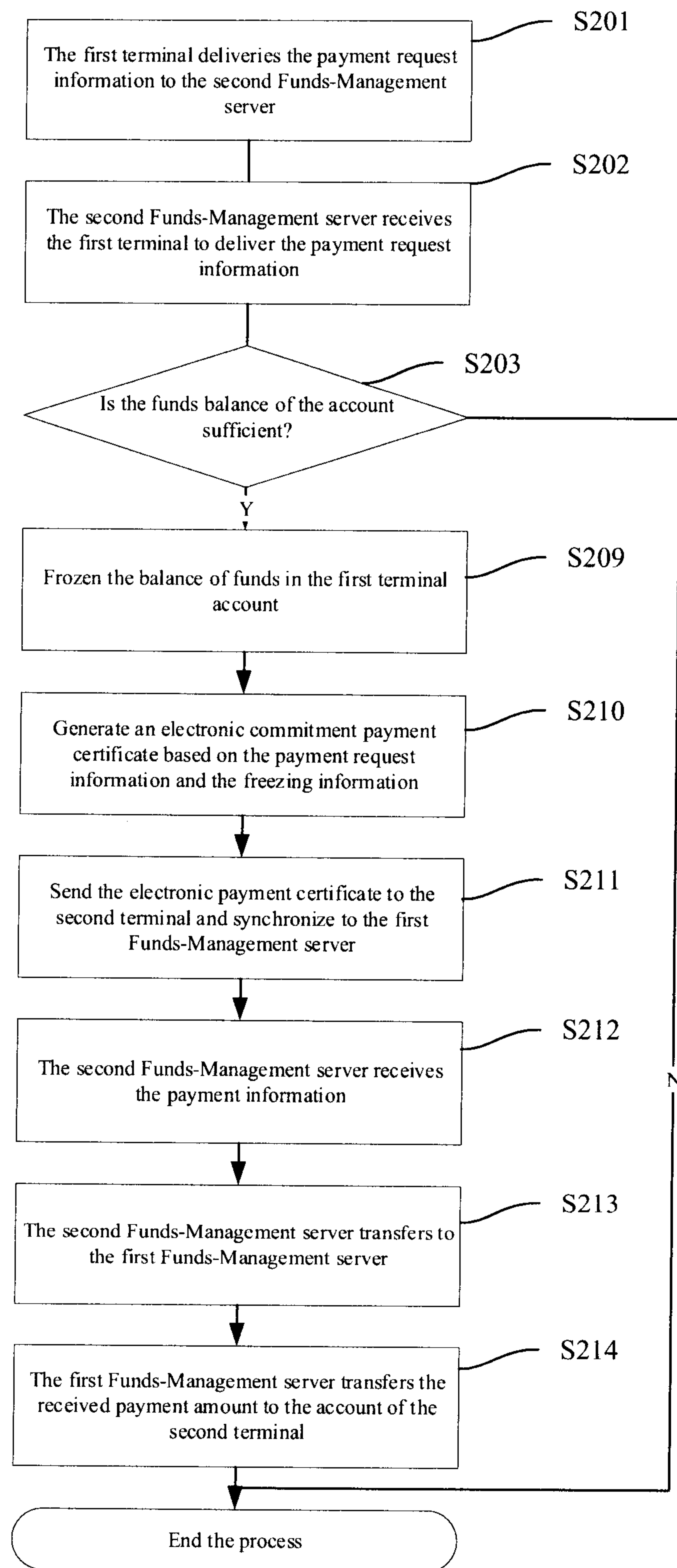


Figure 2

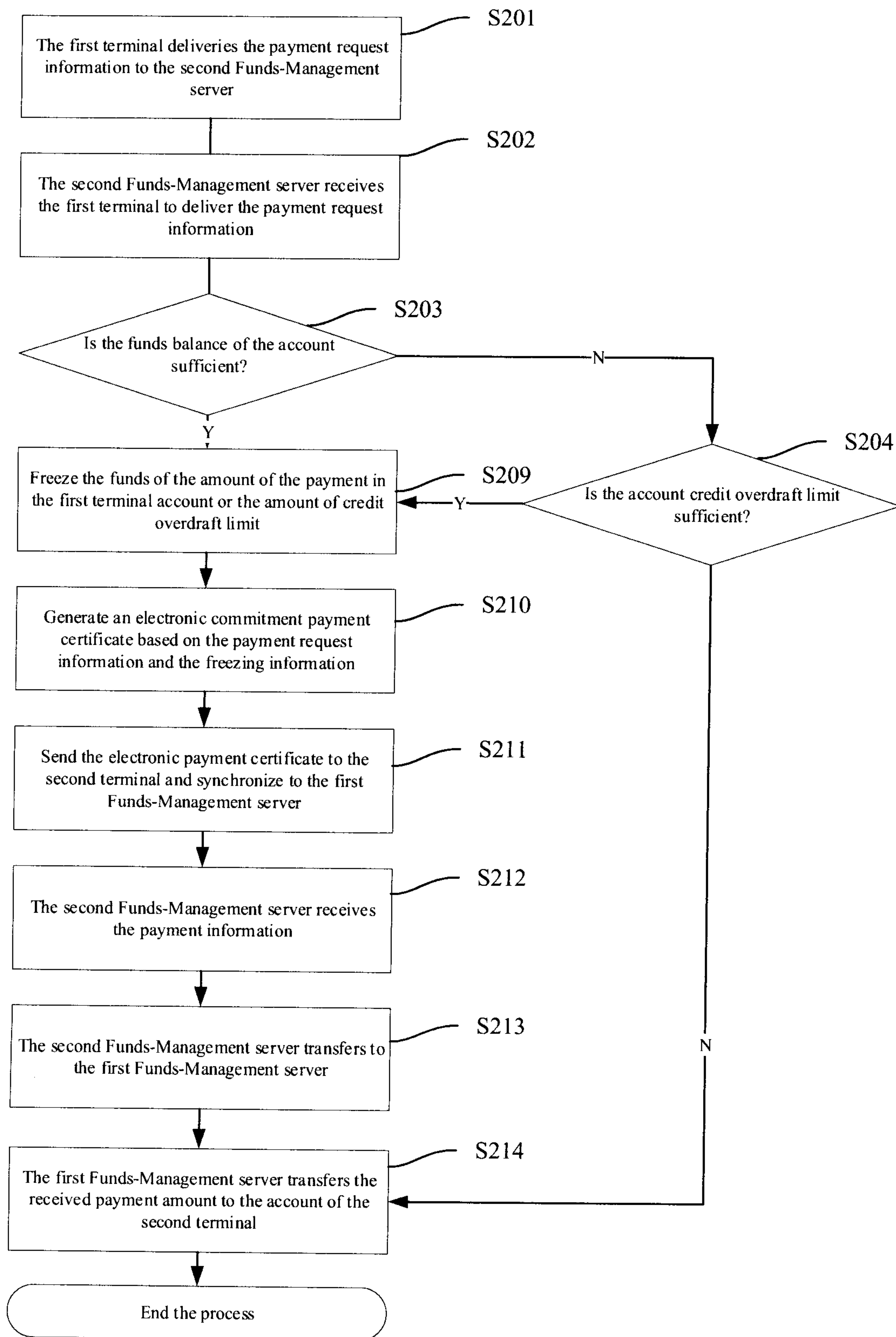


Figure 3

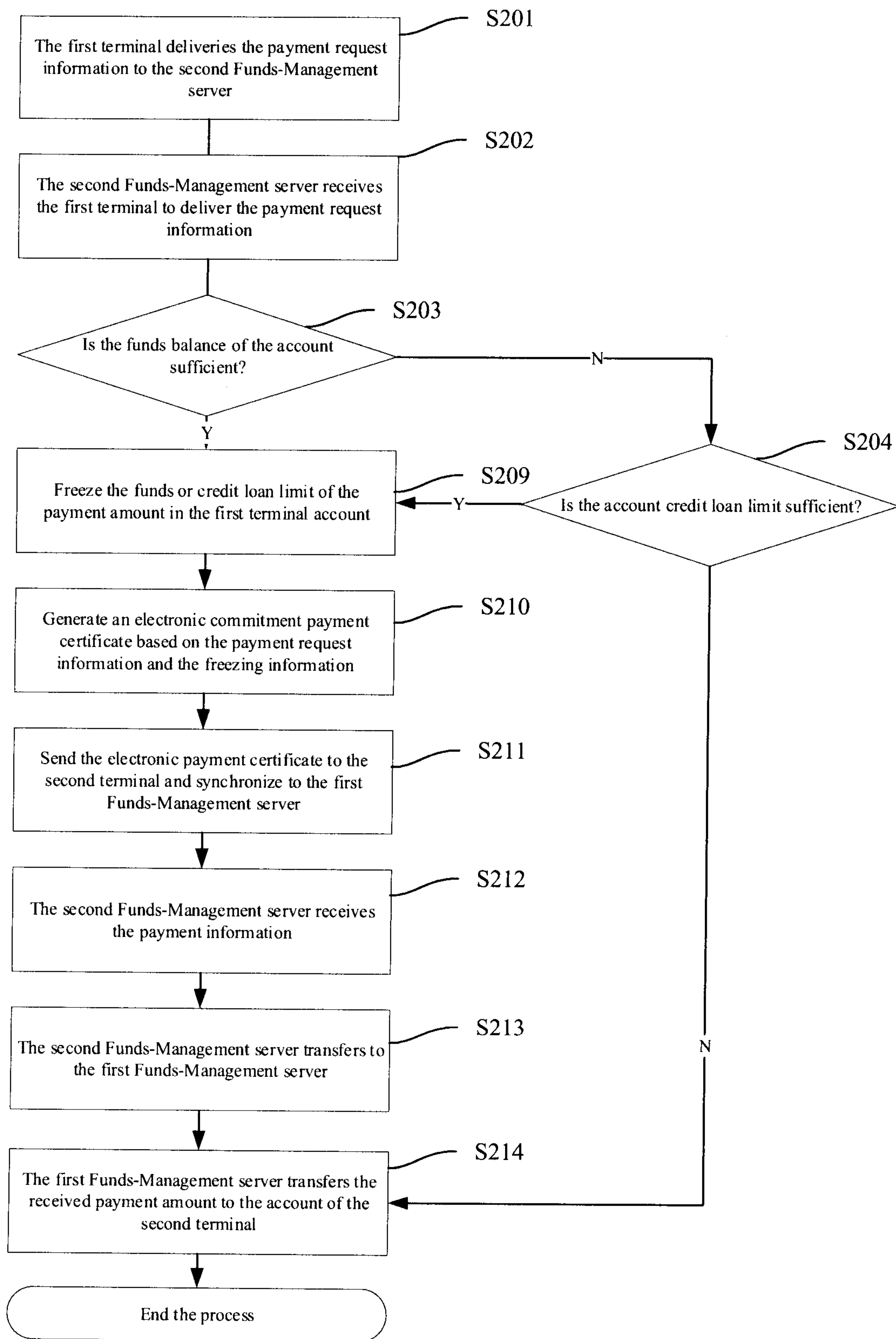


Figure 4

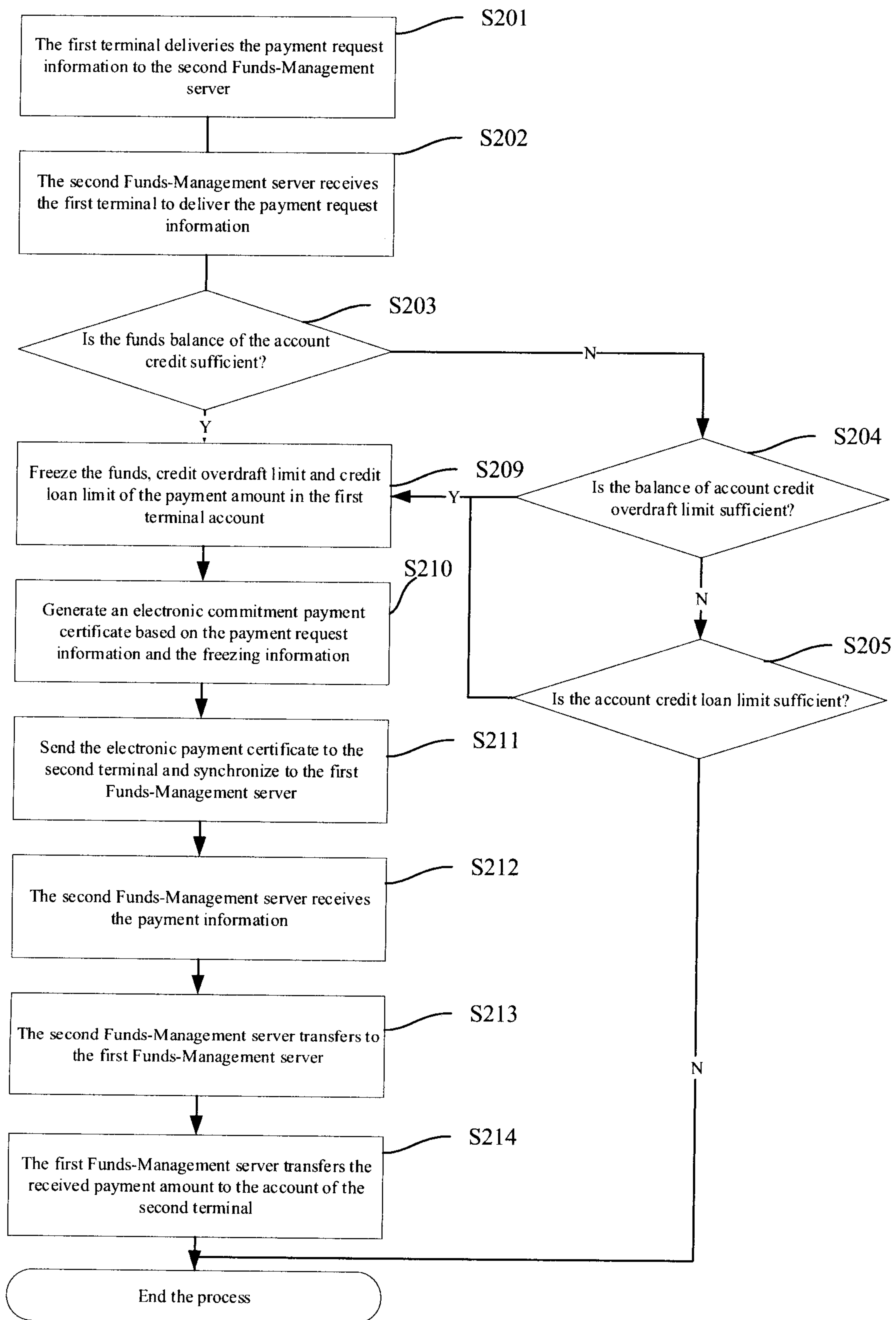


Figure 5

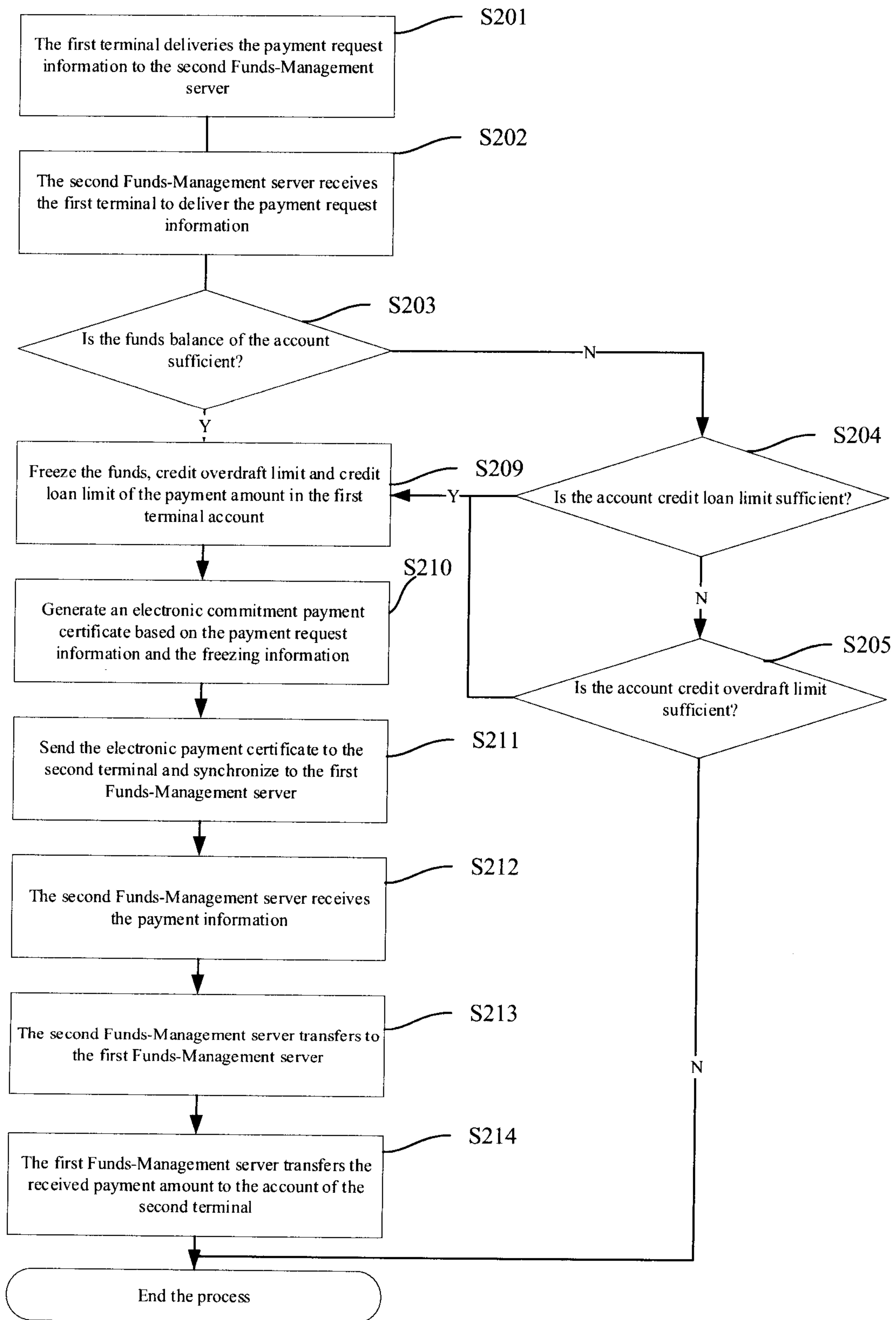


Figure 6

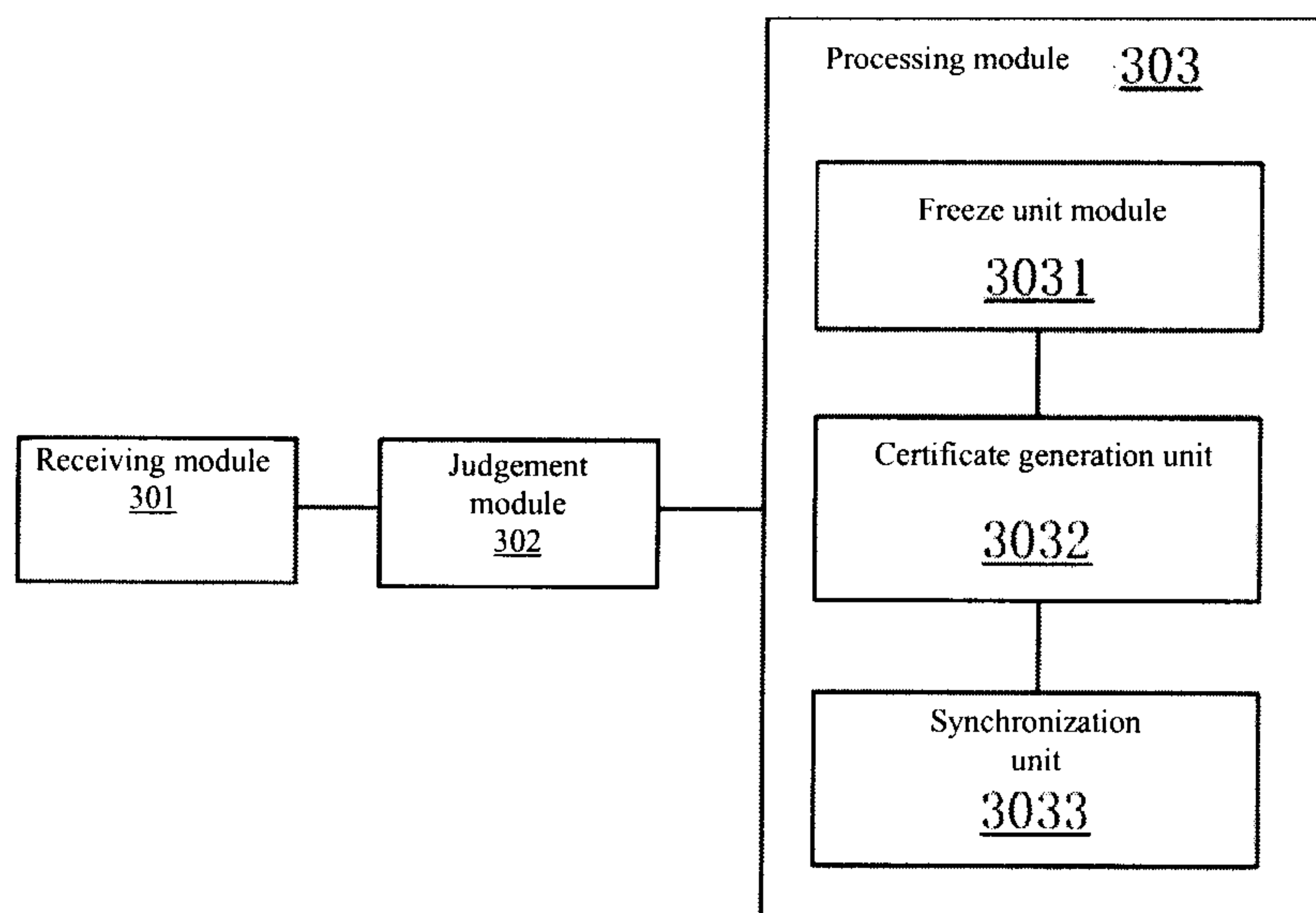


Figure 7

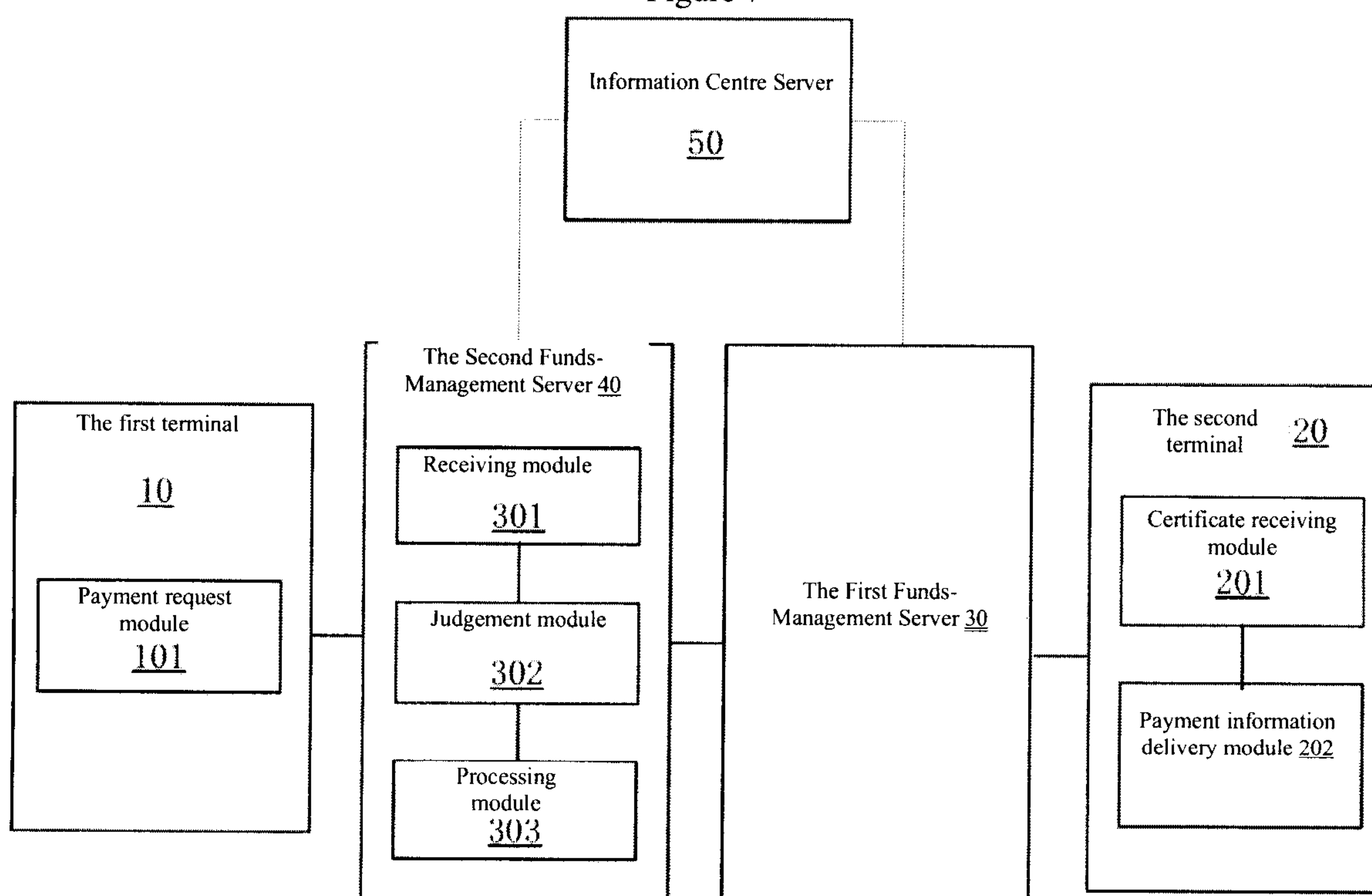


Figure 8

