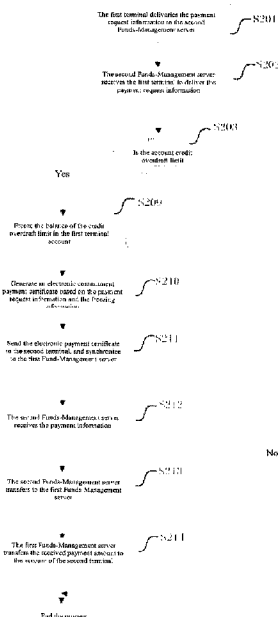




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(54) Titre : SYSTEME DE PAIEMENT BASE SUR DIFFERENTS SERVEURS DE FONDS, ET PROCEDE DE PAIEMENT, DISPOSITIF ET SERVEUR ASSOCIE
(54) Title: PAYMENT SYSTEM BASED ON DIFFERENT FUNDS SERVERS, AND PAYMENT METHOD, DEVICE AND SERVER THEREFOR



(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 receiving payment request information sent by a first terminal; comparing a first terminal account credit overdraft limit with a payment amount to determine whether an electronic commitment payment certificate can be created; if yes, the second funds-management server freezing the credit overdraft limit within the first terminal account, the credit overdraft limit corresponding to the payment amount; 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 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.

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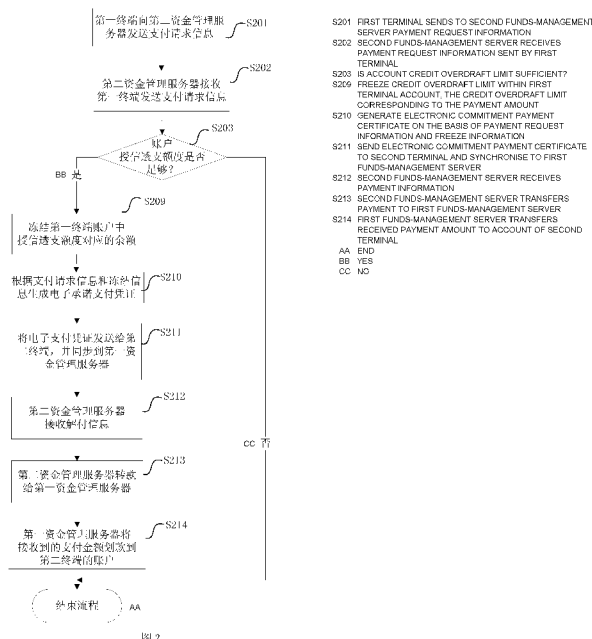
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(54) Title: PAYMENT SYSTEM BASED ON DIFFERENT FUNDS SERVERS, AND PAYMENT METHOD, DEVICE AND SERVER THEREFOR

(54) 发明名称: 基于不同资金服务器的支付系统及其支付方法、装置和服务器



(57) 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 credit overdraft limit with a payment amount to determine whether an electronic commitment payment certificate can be created; if yes, the second funds-management server freezing the credit overdraft limit within the first terminal account, the credit overdraft limit corresponding to the payment amount; 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 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.

(57) 摘要:

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本发明公开了一种基于跨资金管理服务器的支付系统及其支付方法、装置和资金管理服务器，属于电子商务领域。其中，该方法包括：第二资金管理服务器接收第一终端发送的支付请求信息；比较第一终端账户授信透支额度和支付金额判断能否开出电子承诺支付凭证；若能，第二资金管理服务器冻结第一终端账户授信透支额度内与支付金额对应的额度；生成资金管理服务器承诺按约定条件解付资金的电子承诺支付凭证，将该电子承诺支付凭证发送给第二终端替所述第一终端进行信用承诺支付。采用本发明技术方案，将交易双方予以监管能降低资金风险，保障交易双方的利益。

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

[1] [Technical Field]

[2] This invention involves E-commerce field, and especially involves a payment system based on different funds servers, 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 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. This shows that at this stage the need for new payment systems, methods, devices and Funds-Management server to reduce the risk of user funds 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 based on different funds servers and their payment methods, devices and servers to reduce the risk of user funds and safeguard 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 second funds server is used for receiving payment request information sent by the first terminal, comparing the first terminal account's credit overdraft limit with the payment amount to determine whether an electronic commitment payment certificate can be created; if yes, the second Fund-Management server freezes corresponding amount of the credit overdraft limit equal to the payment amount within the first terminal account, then generating the electronic commitment payment certificate for the Fund-Management server 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.
- [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 credit overdraft limit and the payment amount to determine whether or not an electronic commitment payment certificate is to be paid;
- [17] If the said second Funds-Management server is to freeze the amount corresponding to the payment amount in the first terminal account; generating an electronic commitment payment certificate that is promised to pay the funds by the second Funds-Management server according to the agreed condition, 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 fund 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] A judgement module configured to determine whether or not to allow a credit commitment payment based on the first terminal account credit overdraft limit and the payment amount;
- [21] A processing module configured to freeze a credit excess amount corresponding to the payment amount within the first terminal account when payment is allowed; generating an electronic commitment payment certificate to deliver the electronic commitment payment certificate information to a second terminal.
- [22] According to still another aspect of the present invention, there is provided a server based on a different capital server, the server comprising a payment device of the above-described technical solution.
- [23] The present invention provides a payment system based on different funds server and its method, device and server, supervises the information of the buyers and sellers through the first Funds-Management server and the second Funds-Management server, and the regulatory function is merged into the bank or other which can reduce the risk of funds and protect the interests of buyers and sellers; this program makes full use of the centre function of risks control of credit centre of the first Funds-Management server and the second fund Funds-Management server, to promote online transaction and protect the security of online transaction to provide a credit medium for both the transaction parties, and also to reduce the risk of funds to protect the interests of both parties through the supervision of funds. 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 funds server provided by an example of the present invention;
- [28] Figure 4 is a flow chart of the payment method based on a different funds server provided by an example of the present invention;
- [29] Figure 5 is a flow chart of the payment method based on a different funds server provided by an example of the present invention;
- [30] Figure 6 is a flow chart of the payment method based on a different funds server provided by an example of the present invention;

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

Figure 8 is the block diagram of the payment system based on different fund servers provided by an example of the present invention.

Description of the Preferred Examples

The present invention will be described in further detail with reference to the accompanying drawings and the accompanying drawings, 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.

Example 1

As shown in Figure 1, an example of the present invention provides a 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, 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:

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.

Specifically, the first terminal 10 is adapted to a payment party, such as a terminal used by a client, including an intelligent device such as a mobile phone, a personal computer, a PAD, etc., the account information of the first terminal 10 is filled in when the customer registers and stores the information in the second funds-management service 40, the account information of the first terminal 10 includes information such as a customer ID, an account opening bank, an account name, a bank account number, a credit balance, and the like, and may include the customer's shipping address information. 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.

A second Funds-Management server 40 for receiving the payment request information transmitted from the first terminal 10 and judging whether or not the account is based on the payment amount and the first terminal account credit overdraft amount, the first terminal account fund balance and the first terminal account credit amount If the result of the judgment is a payment capacity, the amount corresponding to the payment amount in the credit amount of the first terminal account is frozen and the electronic payment certificate is generated based on the payment request information and the freeze information, and then the electronic payment certificate is delivered to

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the two terminals, and synchronized to the first Funds-Management server.

The second terminal 20 for receiving the electronic payment certificate information transmitted from the second Funds-Management server 40.

Specifically, the second terminal 20 is adapted to the recipient (merchant), and the second terminal includes but not limited to a device such as a server or a POS machine. Merchants include but not limited to manufacturers, agents, logistics companies, etc. 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.

A first Funds-Management server 30 for receiving and storing the electronic payment certificate information transmitted by the second Funds-Management server 40 and for allocating the received payment amount to the account of the second terminal based on the electronic payment certificate information.

Correction page (Rule 91) ISA/CN

- [44] Wherein, the electronic payment certificate information is the key information in the payment behaviour, which is convenient to subsequent follow-up of the 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

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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 first terminal account credit overdraft limit and payment amount to determine whether to generate electronic commitment payment certificate to pay with it, if allowed to pay, then enter S209, otherwise, to terminate the payment, the end of the process.
- [52] S209, the second Funds-Management server freezes the first terminal account credit overdraft limit corresponding to the payment amount in the first terminal account;
- [53] This Step only to freeze the credit loan 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 guaranteed, followed by the first terminal, the second terminal or the logistics company to send the payment information to confirm the delivery is completed by the second Funds-Management server to receive payment information, with the payment of funds equal to the funds allocated to the first Fund-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 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.
- [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

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server, determines whether or not the payment is permitted based on the first terminal account credit loan limit and the payment amount, and by freezing the first terminal account of the credit loan limit, and generates electronic commitment payment certificate, which can reduce the risk of funds to 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 Funds-Management server receives the first terminal to deliver the payment request information;

[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 credit loan limit and the amount of payment to determine whether to generate electronic commitment payment certificate to pay with credit commitment, if allowed, enter S209, otherwise enter S204.

[67] S204, compare the balance of the first terminal account and the amount of payment to determine whether to generate electronic commitment certificate to pay with the credit commitment, if allowed, enter S209, or 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,

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

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comprises the steps of:

- [80] S201, the first terminal transmits the payment request information to the second Fund-Management server, and the payment request information includes the payment amount.
- [81] S202, the second Funds-Management server receives the payment request information sent by the first terminal.
- [82] Specifically, the payment request information received by the Fund-Management server includes merchant information, product 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, 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.
- [84] 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.
- [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 will freeze the balance of the funds or credit loan limit corresponding to the payment amount in the first terminal account;
- [87] This Step only to freeze the amount of funds or credit limit to ensure that there is sufficient

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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.

- [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 freezes the corresponding 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.
- [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 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 illustrated by the example of the present invention can reduce the risk of funds and protect the interests of buyers and sellers through the second Funds-Management server receiving the payment request information of the first terminal, determining whether or not the payment is permitted based on the first terminal account credit loan limit and the payment amount, then at the same time freezing the credit loan amount of the first terminal account, and generating electronic commitment payment certificate.
- [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, compare the first terminal account credit overdraft limit and the payment amount to determine whether or not to generate an electronic commitment payment certificate to pay with, If allowed, the process proceeds to S209, otherwise the process proceeds to Step S204.
- [101] S204, compare the first terminal account credit loan limit and the amount of payment to determine whether to generate electronic commitment payment certificate to pay with credit commitment, if allowed, enter S209, otherwise enter S204.
- [102] 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.
- [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;

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- [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 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, to determine whether being allowed to pay based on the credit overdraft limit of first terminal account, account funds limit of the first terminal and credit loan limit of the first terminal account, while freezing the payment amount of the first terminal account and generating electronic commitment payment certificate to complete real-time monitoring, which can reduce the risk of funds to protect the interests of buyers and 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 Fund-Management server, and the payment request information includes the payment amount.
- [115] S202, the second Funds-Management server receives the first terminal to deliver the payment request information;
- [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

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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, compare the first terminal account credit overdraft limit and the payment amount to determine whether or not to generate an electronic commitment payment certificate to pay with, If allowed, the process proceeds to S209, 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 the balance of the account funds and the amount of payment to determine whether to generate electronic commitment to pay with, if allowed, then enter S209, or end the process.
- [120] 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;
- [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

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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 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 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 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 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.
- [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 judgment module 302 is specifically configured to determine whether terminal account credit overdraft limit is greater than or equal to the payment amount, and if so, to allow payment; otherwise, the balance of the first terminal account whether the balance is greater than or equal to the amount of payment, if yes, then allow payment; otherwise to further determine whether the terminal account credit overdraft limit is greater than the amount of payment, if so, 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 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 balance or credit limit corresponding to the first terminal account. Only when the balance of funds or credit limit of the first terminal account greater than or equal to the amount of payment, it means that customers have the ability to pay, then payment behaviour allowed. 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 credit limit corresponding to the payment amount in the first terminal account when payment is allowed, and generate an electronic commitment payment certificate to deliver 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 amount corresponding to the payment amount in the first terminal account when the payment is allowed;
- [138] The certificate generation unit 3032 is configured to generate an electronic commitment payment certificate;
- [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 overdraft limit; 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, 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.
- [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 judgment module 302 is arranged to determine whether or not a credit commitment payment is permitted based on the first terminal account credit overdraft limit and the payment amount;
- [150] As a preferred example, the determination module 302 is configured to determine whether the terminal account credit overdraft limit is greater than or equal to the payment amount, and if so, to allow payment; otherwise, it is further judged the first terminal account credit limit is greater than or equal to the amount of payment, if yes, then allow payment, or further determine whether the balance of the first terminal account funds is greater than or equal to the amount of payment, and 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 deliver 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 Funds-Management server 30 suspends 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] 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.
- [157] Industrial Applicability
- [158] The present invention provides a payment system based on different funds server and its method, device and server, supervises the information of the buyers and sellers through the first Funds-Management server and the second Funds-Management server, and the regulatory function is merged into the bank or other which can reduce the risk of funds and protect the interests of buyers and sellers; this program makes full use of the centre function of risks control of credit centre of the first Funds-Management server and the second fund Funds-Management server, to promote online transaction and protect the security of online transaction to provide a credit medium for both the transaction parties, and also to reduce the risk of funds to protect the interests of both parties through the supervision of funds. 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 payment system for protecting both a payor and a merchant in e-commerce transactions, the system comprising:

a first terminal;

a second terminal;

a first funds management server;

a second funds management server;

wherein the second funds management server is connected to the first terminal and the first funds management server is connected to the second terminal;

wherein the first terminal is configured to deliver a payment request for an e-commerce transaction to the second funds management server according to a pre-set rule, wherein the payment request includes at least a payment amount and a unique identification information for the second terminal;

wherein the second terminal is configured to receive an electronic certificate delivered by the second funds management server;

wherein the second funds management server is configured to:

receive the payment request from the first terminal;

compare a first terminal credit overdraft limit with the payment amount to determine whether the electronic certificate is generable;

when the electronic certificate is generable the second funds management server is further configured to:

freeze a freeze amount from the first terminal credit overdraft limit, wherein the freeze amount is equal to the payment amount;

generate the electronic certificate for committing payment according to an agreed condition;

send the electronic certificate to the first funds management server; and

deliver the electronic certificate to the second terminal to make a credit commitment payment on behalf of the first terminal;

wherein the first funds management server is configured to:

receive the electronic certificate synchronized from the second funds management server, wherein the electronic certificate includes payment behaviour information;

verify whether there is an exception in the payment behaviour information;
store the electronic certificate; and

allocate the payment amount to a second terminal account according to the electronic certificate, wherein the second terminal account is confidential and identified from a database associated to the second funds management server using the unique identification information for the second terminal.

2. The system of claim 1 wherein the first terminal is configured for use by a payor.

3. The system of claim 1 wherein the first terminal is a mobile phone.

4. The system of claim 1 wherein the first terminal is a personal computer.
5. The system of claim 1 wherein the first terminal is a PDA.
6. The system of claim 1 wherein the payment request includes a customer ID.
7. The system of claim 1 wherein the payment request includes an account opening bank.
8. The system of claim 1 wherein the payment request includes an account name.
9. The system of claim 1 wherein the payment request includes a bank account number.
10. The system of claim 1 wherein the payment request includes a credit balance.
11. The system of any one of claims 1-10 wherein the payment request includes shipping address information.
12. The system of any one of claims 1-10, wherein the payment request includes a receipt address.
13. The system of any one of claims 1-10, wherein the payment request includes goods information.
14. The system of any one of claims 1-10, wherein the payment request includes services information.
15. The system of any one of claims 1-10, wherein the second terminal is configured for use by a merchant.
16. The system of any one of claims 1-10, wherein the second terminal is a POS machine.

17. The system of claim 15 wherein the merchant is a manufacturer.
18. The system of claim 15 wherein the merchant is a agent.
19. The system of claim 15 wherein the merchant is a logistics company.
20. The system of any one of claims 1-19, wherein the first terminal is connected to the internet.
21. The system of any one of claims 1-19, wherein the first funds management server is a single physical server.
22. The system of any one of claims 1-19, wherein the first funds management server is a cluster server.
23. The system of any one of claims 1-19, wherein the second funds management server is a single physical server.
24. The system of any one of claims 1-19, wherein the second funds management server is a cluster server.
25. The system of any one of claims 1-19, wherein the first funds management server is associated with a credit-capable organization.
26. The system of any one of claims 1-19, wherein the second funds management server is associated with a credit-capable organization.

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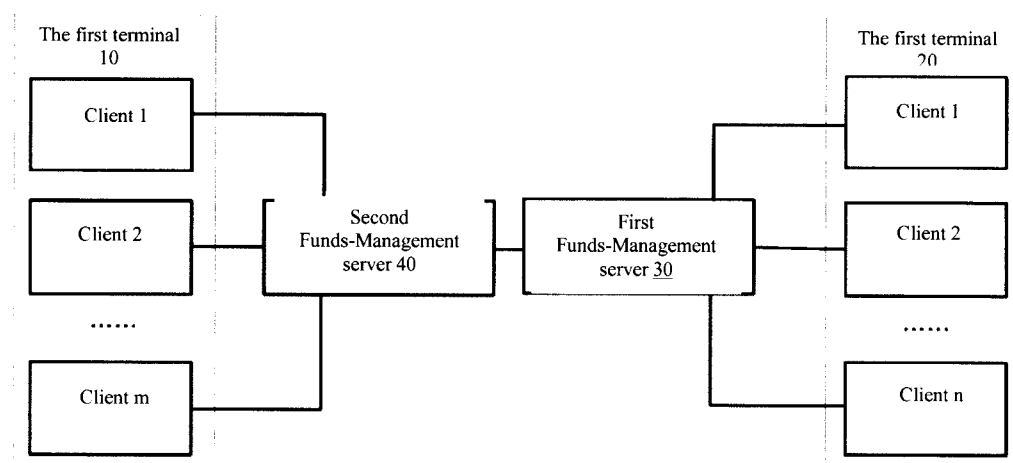


Figure 1

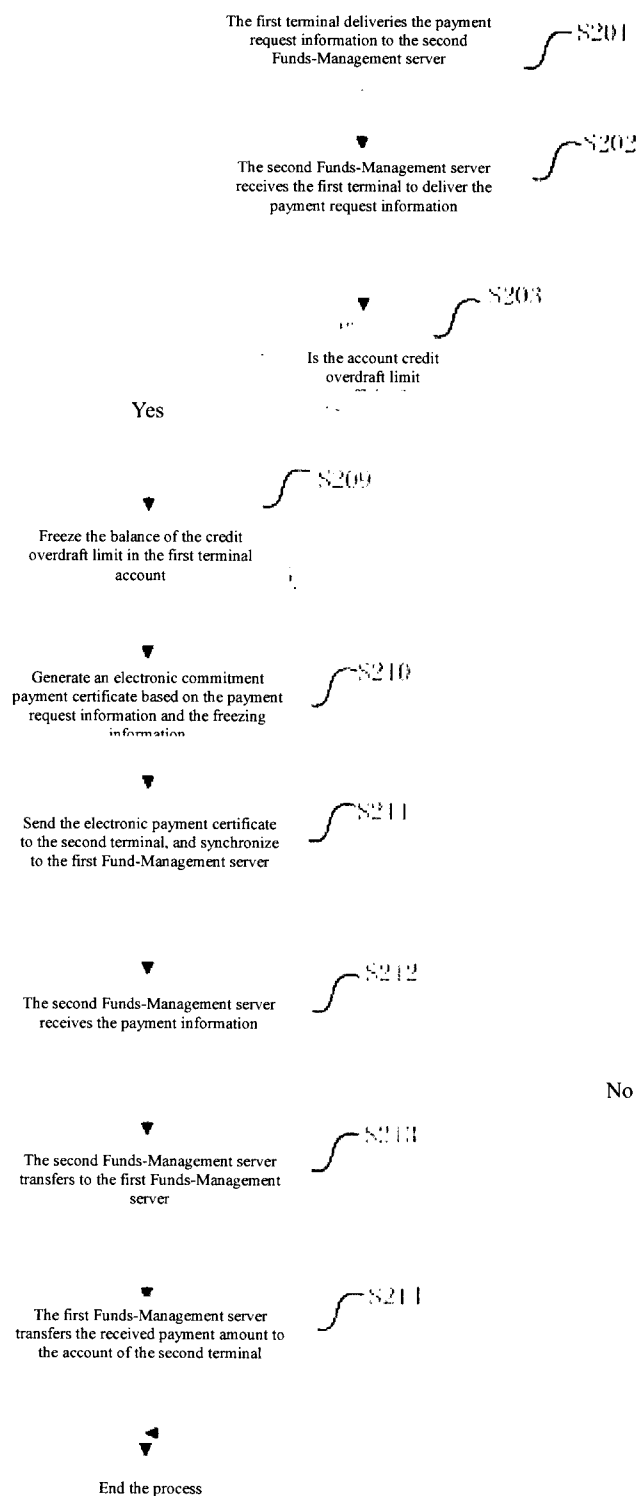


Figure 2

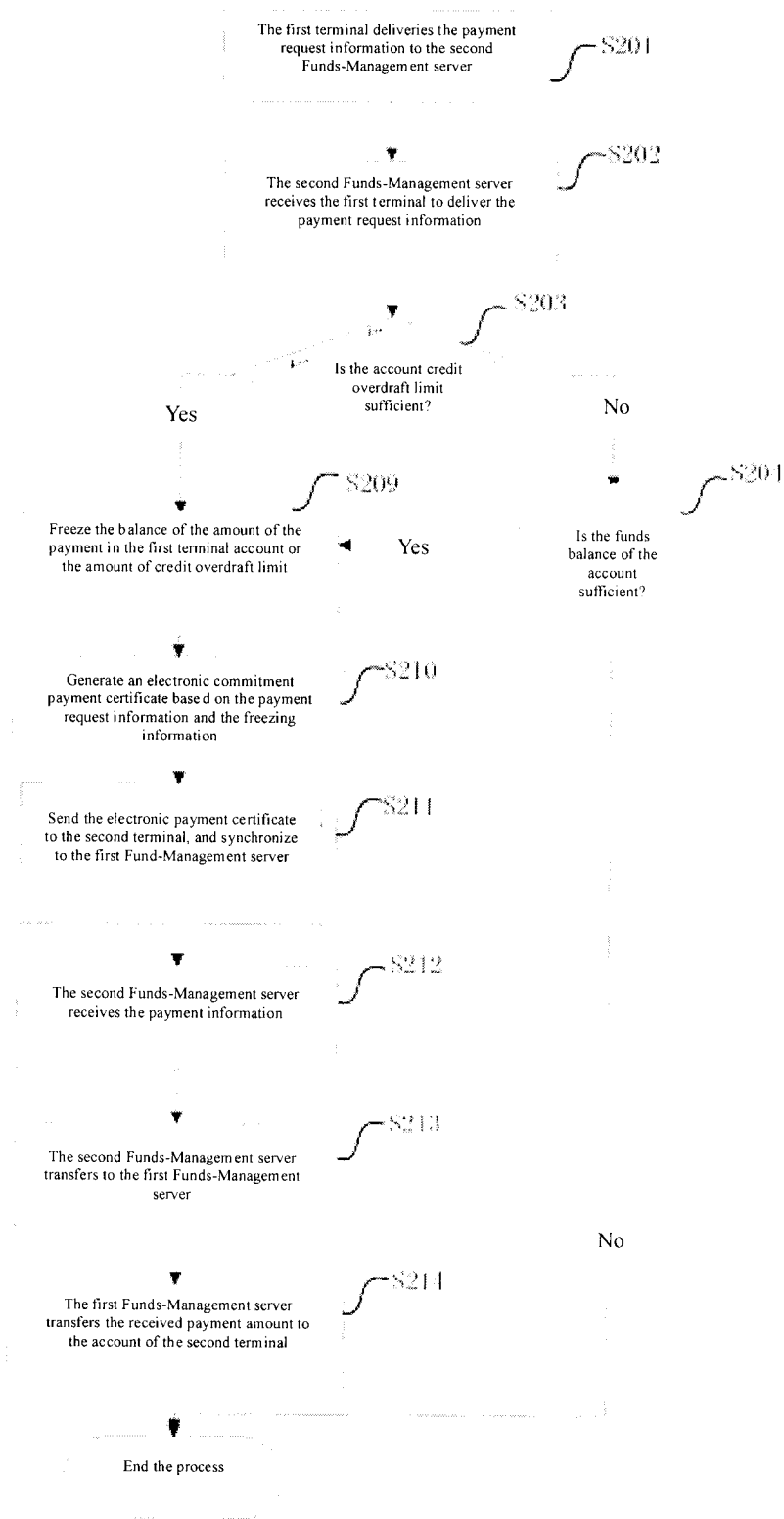


Figure 3

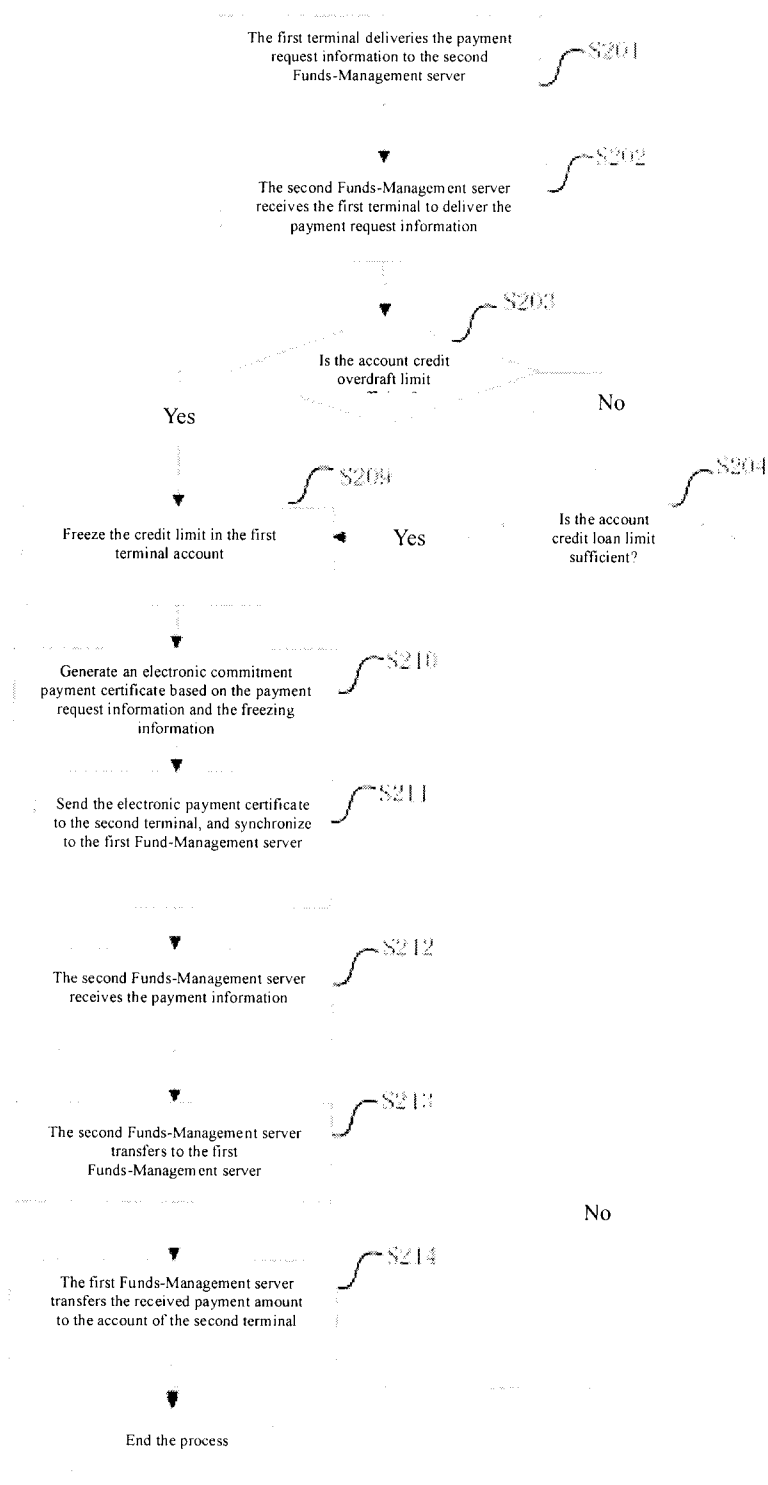


Figure 4

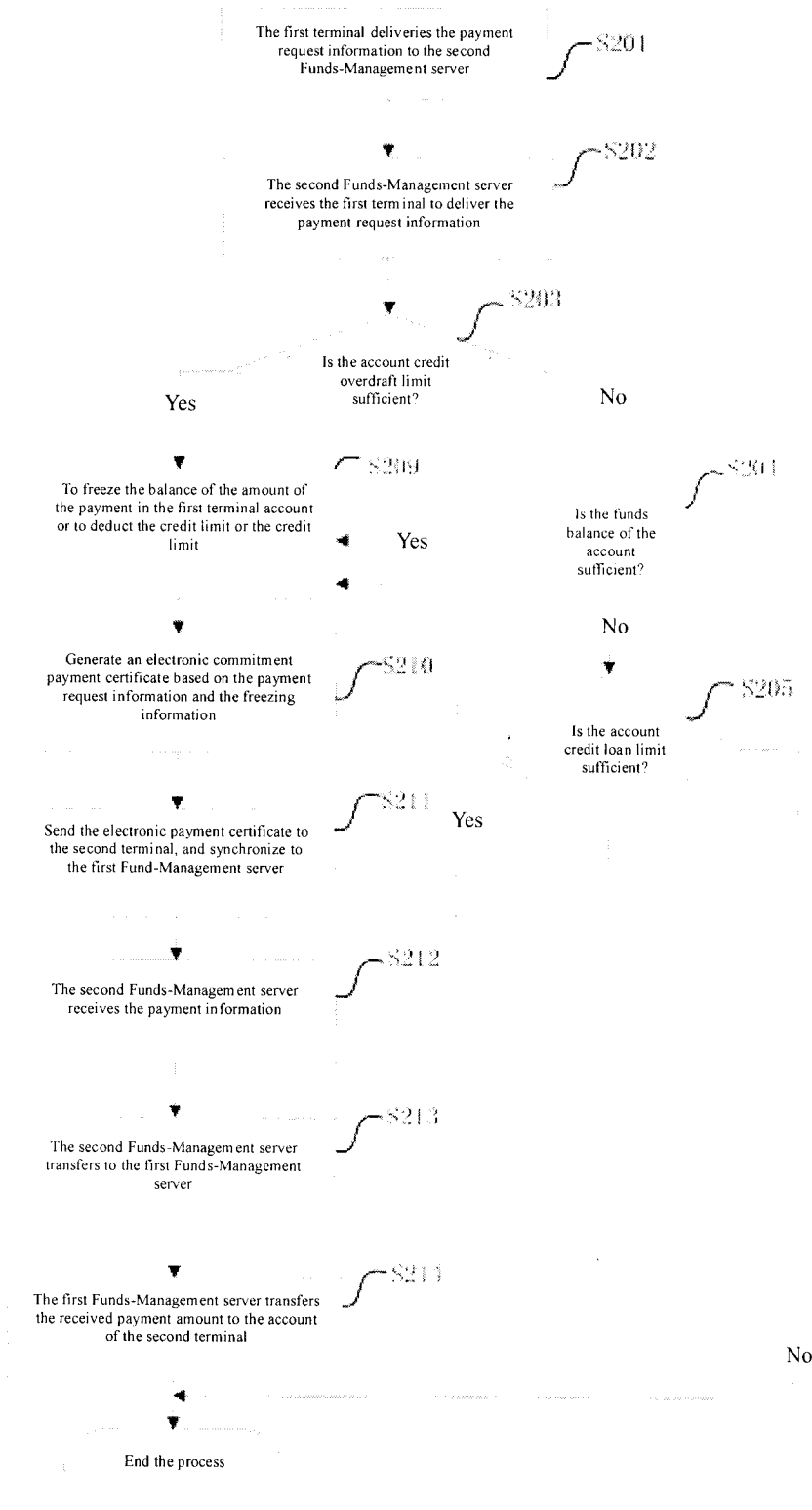


Figure 5

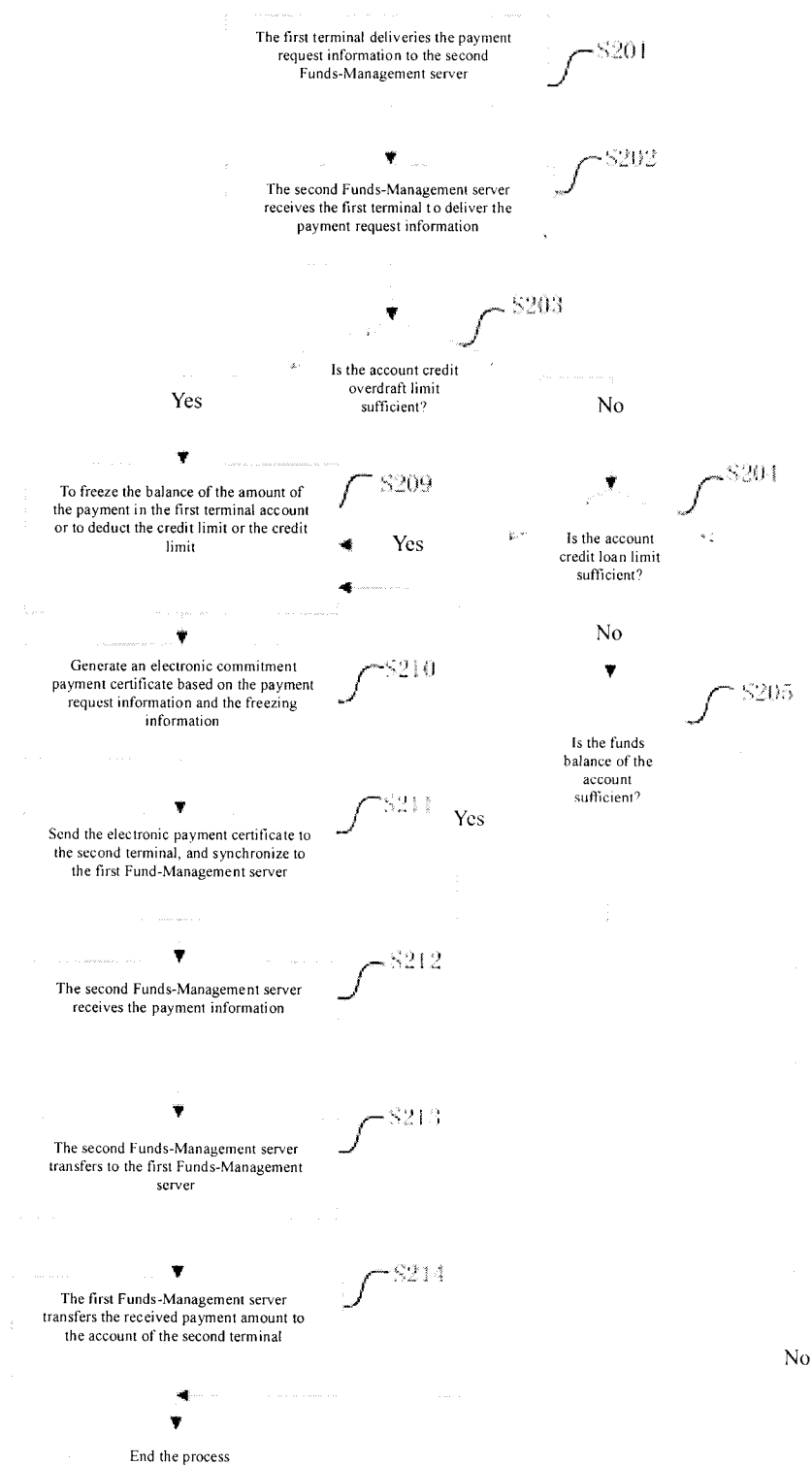


Figure 6

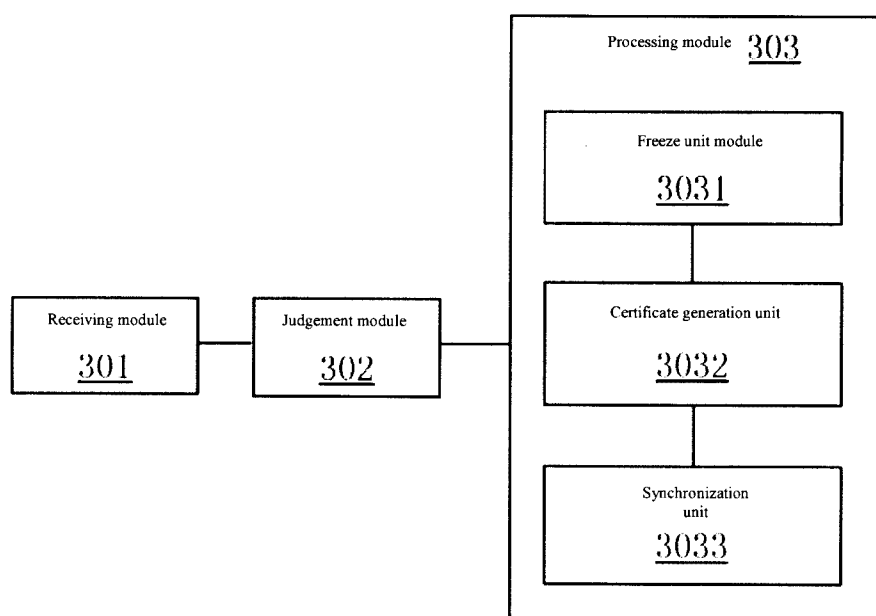


Figure 7

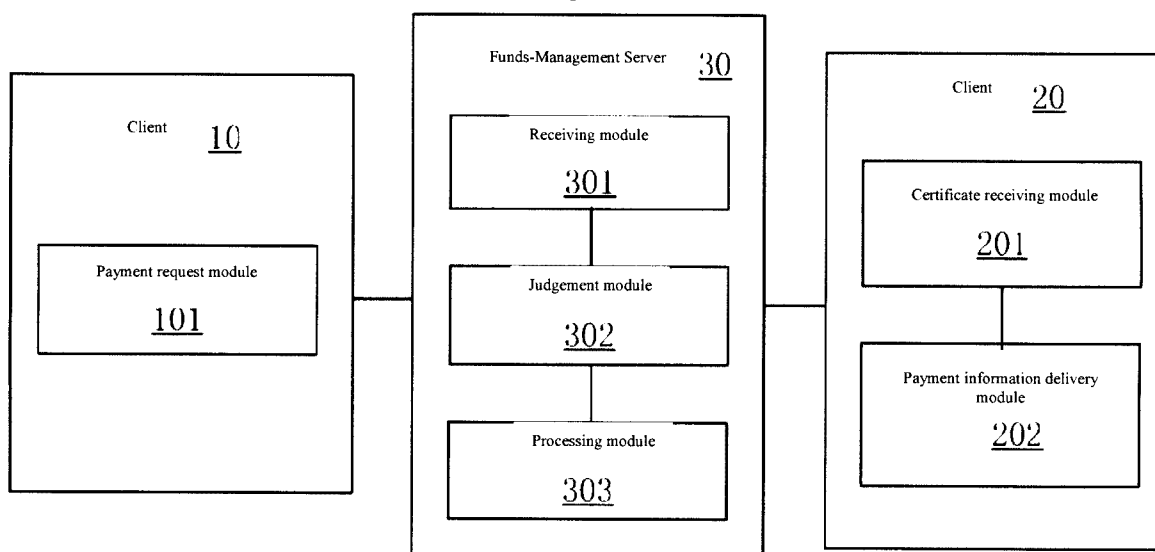


Figure 8

