

# **SETTLEMENT METHOD, APPARATUS AND DEVICE, AND COMPUTER-READABLE MEDIUM**

## **TECHNICAL FIELD**

[0001] This application relates to the field of computer technologies, and in  
5 particular, to a settlement method, apparatus, and device, and a computer-readable  
medium.

## **BACKGROUND**

[0002] Marketing refers to a process in which a merchant discovers or explores a  
consumer's demand, and make the consumer know a product and then purchase the  
10 product. To improve a marketing effect, the merchants sometimes invest in marketing  
to expect more consumers to purchase their products, such as making a deduction or  
rebate during settlement, thereby helping the merchants increase a total transaction  
amount. However, in a macro environment in which countries impose strong  
supervision on a cross-border fund flow, it is difficult to implement the cross-border  
15 fund flow. Consequently, it is difficult for the merchants to invest in marketing.

[0003] Therefore, it is necessary to provide a method for helping a merchant to  
invest in marketing.

## **SUMMARY**

[0004] Some embodiments of this specification provide a settlement method,  
20 apparatus, and device, and a computer-readable medium, so as to resolve a problem  
about investment in marketing of a merchant.

[0005] To resolve the above-mentioned technical problem, some embodiments of  
this specification provide the following solutions:

[0006] Some embodiments of this specification provide a settlement method,  
25 including: receiving a deduction request initiated by an acquiring server for a target  
transaction to an account of a user, where the target transaction is a transaction  
generated by the user for a target product and a seller of the target product, and a  
deduction limit corresponding to the deduction request information is an initial price

of the target product; determining a preferential amount for the target product, where a limit corresponding to the preferential amount is a preferential limit of the seller for the target product; writing off the preferential amount from a fund node in a fund free-flowing region of the seller, where the seller pre-deposits a fund greater than the preferential amount in the fund node; and determining, based on a difference between the initial price and the preferential amount, a payment amount to be deducted from the account of the user in response to the deduction request.

**[0007]** Some embodiments of this specification provide another settlement method, including: receiving transaction amount information corresponding to a target transaction, where the target transaction is a transaction generated by the user for a target product and a seller of the target product, and an amount corresponding to the transaction amount information is an initial price of the target product; sending a fund write-off request to a server on a marketing settlement side, where the fund write-off request is used by the server on the marketing settlement side to write off a preferential amount for the target product from a fund node in a fund free-flowing region of the seller, the seller pre-deposits a fund greater than the preferential amount in the fund node, and the preferential amount is a preferential limit of the seller for the target product; and sending a deduction request to an account of the user, where the deduction request is used to deduct, from the account of the user, an amount corresponding to a difference between the amount corresponding to the transaction amount information and the preferential amount.

**[0008]** Some embodiments of this specification provide another settlement method, including: sending, by a server on an acquiring institution side, a deduction request to a server on a settlement side for a target transaction, where the target transaction is a transaction generated by a user for a target product and a seller of the target product, and a deduction limit corresponding to the deduction request information is an initial price of the target product; determining, by the server on the settlement side, a preferential amount for the target product, where a limit corresponding to the preferential amount is a preferential limit of the seller for the target product; writing off the preferential amount from a fund node in a fund free-flowing region of the seller, where the seller pre-deposits a fund greater than the preferential amount in the fund node; determining, based on a difference between the initial price and the preferential amount, a payment amount to be deducted from an account of the user in response to the deduction request; and transferring a limit corresponding to the

payment amount from the account of the user, and transferring the limit corresponding to the preferential amount from the fund node to an account of the seller.

[0009] Some embodiments of this specification provide a settlement apparatus, including: a deduction request receiving module, configured to receive a deduction request initiated by an acquiring server for a target transaction to an account of a user, where the target transaction is a transaction generated by the user for a target product and a seller of the target product, and a deduction limit corresponding to the deduction request information is an initial price of the target product; a preferential amount determining module, configured to determine a preferential amount for the target product, where a limit corresponding to the preferential amount is a preferential limit of the seller for the target product; a preferential amount write-off module, configured to write off the preferential amount from a fund node in a fund free-flowing region of the seller, where the seller pre-deposits a fund greater than the preferential amount in the fund node; and a payment amount determining module, configured to determine, based on a difference between the initial price and the preferential amount, a payment amount to be deducted from the account of the user in response to the deduction request.

[0010] Some embodiments of this specification provide another settlement apparatus, including: a transaction amount information receiving module, configured to receive transaction amount information corresponding to a target transaction, where the target transaction is a transaction generated by the user for a target product and a seller of the target product, and an amount corresponding to the transaction amount information is an initial price of the target product; sending a fund write-off request to a server on a marketing settlement side, where the fund write-off request is used by the server on the marketing settlement side to write off a preferential amount for the target product from a fund node in a fund free-flowing region of the seller, the seller pre-deposits a fund greater than the preferential amount in the fund node, and the preferential amount is a preferential limit of the seller for the target product; and sending a deduction request to an account of the user, where the deduction request is used to deduct, from the account of the user, an amount corresponding to a difference between the amount corresponding to the transaction amount information and the preferential amount.

[0011] Some embodiments of this specification provide a settlement device, including: at least one processor; and at least one memory communicatively

connected to the at least one processor, where the memory stores an instruction that can be executed by the at least one processor, and the instruction is executed by the at least one processor to enable the at least one processor to perform the following operations: receiving a deduction request initiated by an acquiring server for a target transaction to an account of a user, where the target transaction is a transaction generated by the user for a target product and a seller of the target product, and a deduction limit corresponding to the deduction request information is an initial price of the target product; determining a preferential amount for the target product, where a limit corresponding to the preferential amount is a preferential limit of the seller for the target product; writing off the preferential amount from a fund node in a fund free-flowing region of the seller, where the seller pre-deposits a fund greater than the preferential amount in the fund node; and determining, based on a difference between the initial price and the preferential amount, a payment amount to be deducted from the account of the user in response to the deduction request.

**[0012]** Some embodiments of this specification provide another settlement device, including: at least one processor; and at least one memory communicatively connected to the at least one processor, where the memory stores an instruction that can be executed by the at least one processor, and the instruction is executed by the at least one processor to enable the at least one processor to perform the following operations: receiving transaction amount information corresponding to a target transaction, where the target transaction is a transaction generated by the user for a target product and a seller of the target product, and an amount corresponding to the transaction amount information is an initial price of the target product; sending a fund write-off request to a server on a marketing settlement side, where the fund write-off request is used by the server on the marketing settlement side to write off a preferential amount for the target product from a fund node in a fund free-flowing region of the seller, the seller pre-deposits a fund greater than the preferential amount in the fund node, and the preferential amount is a preferential limit of the seller for the target product; and sending a deduction request to an account of the user, where the deduction request is used to deduct, from the account of the user, an amount corresponding to a difference between the amount corresponding to the transaction amount information and the preferential amount.

**[0013]** Some embodiments of this specification provide a computer-readable medium, where the computer-readable medium stores a computer-readable instruction,

and the computer-readable instruction can be executed by a processor to implement a settlement method.

[0014] Some embodiments of this specification can achieve at least the following beneficial effects:

- 5 [0015] In the technical solutions of this specification, after a deduction request initiated by an acquiring server for a target transaction to an account of a user is received, a preferential amount of a seller for a target product is first determined, and then the seller of the target product writes off the preferential amount from a fund node with a pre-deposited fund in a fund free-flowing region of the seller, and then a  
10 deduction limit to be deducted from the account of the user is determined based on a difference between an initial price of the target product and the preferential amount. The solution of the present invention is equivalent to providing a solution that can be used by a seller for investing in marketing during marketing. Especially, in a cross-border scenario, because a cross-border fund flow is supervised, a fund cannot  
15 flow freely between a seller and a user in this case. In this scenario, a marketing fund of the seller does not need to cross a border according to the solution of the present invention, thereby resolving a problem about investment in marketing of the seller under a constraint of supervision on a cross-border fund flow.

## BRIEF DESCRIPTION OF DRAWINGS

- 20 [0016] To describe the technical solutions in some embodiments of this specification or in an existing technology more clearly, the following briefly describes the accompanying drawings needed for describing the embodiments or the existing technology. Clearly, the accompanying drawings in the following descriptions merely show some embodiments of this application, and a person of ordinary skill in the art  
25 can still derive other drawings from these accompanying drawings without creative efforts.

[0017] FIG. 1 is a schematic diagram of an application scenario of a settlement method according to some embodiments of this specification;

- [0018] FIG. 2 is a schematic flowchart of a settlement method according to some  
30 embodiments of this specification;

[0019] FIG. 3 is a schematic flowchart of another settlement method according to some embodiments of this specification;

[0020] FIG. 4 is a signaling interaction diagram of a settlement method on an overall level according to some embodiments of this specification;

[0021] FIG. 5 is a flowchart of a method on an overall level according to some embodiments of this specification;

5 [0022] FIG. 6 is a schematic structural diagram of a settlement apparatus corresponding to FIG. 2 according to some embodiments of this specification;

[0023] FIG. 7 is a schematic structural diagram of a settlement apparatus corresponding to FIG. 3 according to some embodiments of this specification;

[0024] FIG. 8 is a schematic structural diagram of a settlement device corresponding to FIG. 2 according to some embodiments of this specification; and

10 [0025] FIG. 9 is a schematic structural diagram of a settlement device corresponding to FIG. 3 according to some embodiments of this specification.

## DESCRIPTION OF EMBODIMENTS

[0026] To make the objectives, technical solutions, and advantages of one or more  
15 embodiments of this specification clearer, the following clearly and fully describes the technical solutions in one or more embodiments of this specification with reference to some specific embodiments of this specification and the corresponding accompanying drawings. Clearly, the described embodiments are merely some but not all of  
20 embodiments of this specification. All other embodiments obtained by a person of ordinary skill in the art based on some embodiments of this specification without creative efforts shall fall within the protection scope of one or more embodiments of this specification.

[0027] It should be understood that although terms "first", "second", "third", etc.  
25 may be used in this application to describe various types of information, the information should not be limited to the terms. These terms are merely used to differentiate between information of the same type.

[0028] To make more users purchase their products, the merchants sometimes carry out marketing campaigns, that is, sell products to the users at preferential prices that are lower than initial prices of the products, so as to increase a sales volume of the  
30 products. For example, deduction is made upon payment. To be specific, for example, an initial price of a product is 100 yuan, and a preferential limit is 20 yuan. In this case, a user only needs to pay 80 yuan. The user who purchases the product is given a

discount of 20 yuan, so as to increase the sales volume of the products. In addition, during marketing campaigns, in terms of finance, the merchants still want to receive an amount corresponding to the initial price for each product sold, so as to increase a transaction amount, or in terms of finance, make the target product appear to be sold at the initial price. In this case, a solution is that the user still pays the amount corresponding to the preferential price. An operator of an e-wallet used by the user to make the payment prepays the amount corresponding to the preferential limit to the merchant, and later the merchant repays the amount corresponding to the preferential limit to the operator of the e-wallet. However, when a merchant conducts cross-border marketing, a merchant and a user belong to different countries in this case. Because of supervision on a cross-border fund flow, the solution that the operator of the e-wallet used by the user to make the payment prepays a fund poses a potential risk of money laundering, and as a result, is not allowed by regulations. Therefore, it is necessary to provide a method for a merchant to pay a marketing fund, namely, an amount corresponding to a preferential limit during marketing in a cross-border transaction scenario.

**[0029]** The present invention provides a solution that can be used by a merchant to invest in marketing during marketing, so as to resolve a problem about payment of a marketing fund under a constraint of supervision on a cross-border fund flow.

**[0030]** The following describes an application scenario of the technical solution in some embodiments of this specification based on FIG. 1. After a user purchases a target product from a merchant, the user performs payment by running an e-wallet application on a client of the user in cooperation with an acquiring device of the merchant. After receiving an acquiring request, an acquiring server that manages the acquiring device initiates a deduction request to a financial settlement system. The financial settlement system deducts an amount corresponding to the deduction request from an account of the user, and transfers the amount to an account of the merchant. When the merchant and the user belong to different countries, if the merchant wants to invest in marketing to increase a sales volume of the target product in this case, and for reasons of financial supervision, the fund used by the merchant for marketing cannot leave the country, this application resolves the problem about payment of a marketing fund when the merchant conducts marketing in this scenario.

**[0031]** Some embodiments of this specification provide a technical solution suitable for a merchant to invest in marketing. According to the technical solution in some

embodiments of this specification, a marketing fund of the merchant does not need to flow across borders, so as to meet a requirement of the merchant for investment in marketing in different scenarios. In particular, during cross-border marketing, the marketing fund of the merchant can be used for cross-border marketing without crossing a border, thereby meeting a requirement for financial compliance supervision, and helping the merchant conduct cross-border marketing.

**[0032]** The following describes in detail the technical solution in some embodiments of this specification with reference to the accompanying drawings.

**[0033]** To resolve deficiencies of the conventional technology, the present solution provides the following embodiments:

**[0034]** FIG. 1 is a schematic flowchart of an overall solution of a settlement method according to some embodiments of this specification. From a perspective of program execution, the method may be applied to a server on a marketing side. From a perspective of hardware, the server on the marketing side may be a server owned by an operator that provides a sales platform for a product of a merchant.

**[0035]** The following describes in detail the settlement method provided in some embodiments of this specification with reference to the accompanying drawings.

**[0036]** Step 202: Receive a deduction request initiated by an acquiring server for a target transaction to an account of a user, where the target transaction is a transaction generated by the user for a target product and a seller of the target product, and a deduction limit corresponding to the deduction request information is an initial price of the target product.

**[0037]** In some embodiments of this specification, the user may be a buyer who purchases a target product from a seller, and the target product may be a product sold by the seller to the buyer. Therefore, the target transaction may be a transaction that is generated corresponding to a sale behavior of the target product between the user and the seller.

**[0038]** After the seller of the target product sells the target product to the user, the user needs to perform the corresponding payment. There may be a plurality of payment methods, for example, card swiping payment and payment by using an e-wallet. In this case, the user can complete the corresponding payment operation based on the acquiring device of the seller. In this sense, the acquiring server is the server that manages the acquiring device. The acquiring server actually completes the operation of deduction from the account of the user. The acquiring server can initiate a

deduction request to a related server that manages the account of the user.

[0039] Step 204: Determine a preferential amount for the target product, where a limit corresponding to the preferential amount is a preferential limit of the seller for the target product.

5 [0040] In some embodiments of this specification, the preferential amount may be a preferential limit for the target product when the seller of the target product sells the target product to the user. For example, the seller sells the target product at a lowered price to increase a sales volume of the target product. A price reduction range for the selling at a lowered price may refer to a preferential amount.

10 [0041] Step 206: Write off the preferential amount from a fund node in a fund free-flowing region of the seller, where the seller pre-deposits a fund greater than the preferential amount in the fund node.

[0042] Due to strengthened financial supervision in various countries, a cross-border fund flow is limited. In this sense, in some embodiments of this specification, the fund  
15 free-flowing region may be a region in which a fund of the seller can flow freely. For example, if the seller is in a region B of country A, and a cross-region fund flow in country A is not limited, a region C of country A may be included in the fund free-flowing region of the seller. It should be noted that a fund flow between some countries is unregulated. For example, a fund flow among countries D, E, and F is  
20 unregulated, but a fund flow between any one of the three countries and another country except the three countries is regulated. In this case, a unified fund node may be set up in any one of countries D, E, and F.

[0043] To increase the sales volume of the target product, the seller of the target product may carry out marketing campaigns. For example, an original price of the  
25 target product is 100 yuan, and the seller may give a discount of 30 yuan to the user. In other words, the user only needs to pay 70 yuan. When carrying out marketing campaigns, the seller may pre-deposit a fund in an account of the seller in the fund free-flowing region of the seller, to facilitate the marketing campaigns. For example, during marketing campaigns, the seller expects to market 1000 target products. An  
30 original price of each target product is 100 yuan, and a preferential limit is 20 yuan. In other words, the user only needs to pay 80 yuan to purchase the target product. In this case, the seller may pre-deposit 20,000 yuan in the account of the seller in the fund free-flowing region of the seller. After the user purchases the target product, 20 yuan needs to be transferred to the seller from the account.

[0044] The technical solution of this specification may be implemented for a plurality of sellers. In this sense, the fund node may refer to an account that is opened in the fund free-flowing region of the seller and that is used to centrally manage funds of the plurality of sellers for marketing.

5 [0045] Step 208: Determine, based on a difference between the initial price and the preferential amount, a payment amount to be deducted from an account of the user in response to the deduction request.

[0046] In some embodiments of this specification, the initial price of the target product and the preferential amount of the seller for the target product have been  
10 determined in the foregoing steps. On this basis, the payment amount that needs to be actually paid by the user can be determined. Therefore, the payment amount can be deducted from the account of the user based on the payment amount.

[0047] It should be noted that, in a scenario in which the seller conducts cross-border marketing, a specific operation of transferring the payment amount to the  
15 account of the seller may be performed by invoking a service provided by an international financial settlement system, such as a service provided by the Society for Worldwide Interbank Financial Telecommunications (SWIFT). A specific working mode thereof is not described herein.

[0048] In the technical solutions of this specification, after a deduction request  
20 initiated by an acquiring server for a target transaction to an account of a user is received, a preferential amount of a seller for a target product is first determined, and then the seller of the target product writes off the preferential amount from a fund node with a pre-deposited fund in a fund free-flowing region of the seller, and then a deduction limit to be deducted from the account of the user is determined based on a  
25 difference between an initial price of the target product and the preferential amount. Therefore, the solution of the present invention is equivalent to providing a solution that can be used by a seller for investing in marketing during marketing. Especially, in a cross-border scenario, because a cross-border fund flow is supervised, a fund cannot flow freely between a seller and a user in this case. In this scenario, a marketing fund  
30 of the seller does not need to cross a border according to the solution of the present invention, thereby resolving a problem about investment in marketing of the seller under a constraint of supervision on a cross-border fund flow.

[0049] It should be understood that, in the method described in one or more embodiments of this specification, a sequence of some steps may be adjusted

according to an actual requirement, or some steps may be omitted.

[0050] Based on the method in FIG. 2, some embodiments of this specification further provide some specific implementations of the method, which are described below.

5 [0051] According to a technical solution in some optional embodiments, the method further includes: sending a fund transfer instruction to the fund node, where the fund transfer instruction is used to instruct the fund node to transfer the preferential amount to an account of the seller of the target product.

[0052] According to the solution in some embodiments of this specification, the  
10 seller pre-deposits a marketing fund for marketing in a fund node in a fund free-flowing region of the seller. Therefore, whenever the seller sells one target product during duration of marketing campaigns, a fund limit corresponding to a preferential amount needs to be withdrawn from the fund node. In other words, the server on the marketing side needs to send a fund transfer instruction to the server that  
15 manages the fund node. It should be noted that a centralized transfer method may alternatively be used, that is, a total preferential amount corresponding to some target transactions is transferred to the account of the seller in batches. For example, every time the seller sells 10 target products, and a total preferential amount corresponding to the 10 target products needs to be withdrawn, the server that manages the fund  
20 node transfers the total preferential amount corresponding to the 10 target products to the account of the seller at a single time, thereby reducing other costs that may be incurred during transfer of the preferential amount.

[0053] According to a technical solution in some optional embodiments, the determining, based on a difference between the initial price and the preferential  
25 amount, a payment amount to be deducted from the account of the user in response to the deduction request specifically includes:

[0054] determining the difference between the initial price and the preferential amount as a limit corresponding to the payment amount to be deducted from the account of the user; and

30 [0055] deducting the limit corresponding to the payment amount from the account of the user.

[0056] On the basis of determining the payment amount that needs to be deducted from the account of the user in step 208, a deduction operation further needs to be actually completed. This solution is actually completing the operation of deducting a

limit corresponding to the payment amount from the account of the user.

[0057] According to a technical solution in some optional embodiments, before the receiving a deduction request initiated by an acquiring server for a target transaction to an account of a user, the method includes:

5 [0058] receiving marketing configuration information sent by the acquiring server, where the marketing configuration information includes preferential limit information of the seller for the target product; and

[0059] storing the marketing configuration information.

[0060] The marketing configuration information may be information about a  
10 preferential rule that is set by the seller when carrying out marketing campaigns on a target product. Because the seller may carry out marketing campaigns in a plurality of forms, the corresponding information about the preferential rule may include a plurality of forms. For example, the seller may sell the target product at a discount. In this case, the information about the preferential rule may include a discount of a  
15 specific percentage to sell the target product. For another example, the seller may give a specific preferential limit after the user purchases the target product until a specific amount is reached, for example, 20 yuan is deducted when the purchase amount reaches 100 yuan, or 50 yuan is deducted when the purchase amount reaches 200 yuan. In this case, the information about the preferential rule may include the specific  
20 purchase amount and the information about the preferential limit.

[0061] After setting the information about the preferential rule for marketing, the seller may send the information about the preferential rule to the acquiring server. A specific method for sending the information about the preferential rule is not limited in the technical solution of these embodiments. For example, the seller completes a  
25 specific acquiring service by using the acquiring device managed by the operator of the acquiring server. In this case, the seller may send the marketing configuration information including the information about the preferential rule to the acquiring server based on an applet developed by the operator of the acquiring server, and then the acquiring server sends the marketing configuration information to the server on  
30 the marketing side, so that the server on the marketing side stores the marketing configuration information for use in subsequent stages.

[0062] According to a technical solution in some optional embodiments, before the receiving a deduction request initiated by an acquiring server for a target transaction to an account of a user, the method includes:

[0063] receiving marketing configuration information sent by a server of an operator of the fund node, where the marketing configuration information includes preferential limit information of the seller for the target product; and storing the marketing configuration information.

5 [0064] In this solution, the seller pre-deposits a fund in the fund node for marketing. Therefore, in addition to the foregoing mode in which the marketing configuration information is sent to the acquiring server and then the acquiring server sends the marketing configuration information to the server on the marketing side, a method in which the marketing configuration information is sent to the server of the operator of  
10 the fund node and then the server of the operator of the fund node sends the marketing configuration information to the server on the marketing side may alternatively be used.

[0065] According to a technical solution in some optional embodiments, a node for operating the marketing configuration information and a node for responding to a  
15 deduction request may be set up in the server on the marketing side, so that the node for operating the marketing configuration information can quickly send a preferential amount write-off request to the fund node, and the node for responding to the deduction request can quickly send a payment amount deduction request to an e-wallet on the user side.

20 [0066] The technical solutions in some embodiments of the present invention have been described above from a perspective of the server on the marketing side. To describe the technical solutions of the present invention more clearly, the following provides a service execution method applied to an acquiring server. The following describes in detail a settlement method provided in some embodiments of this  
25 specification with reference to FIG. 3. As shown in FIG. 3, the method may include the following steps:

[0067] Step 302: Receive transaction amount information corresponding to a target transaction, where the target transaction is a transaction generated by the user for a target product and a seller of the target product, and an amount corresponding to the  
30 transaction amount information is an initial price of the target product.

[0068] The meaning of the target transaction has been explained above, and details are not described herein again. In this step, the seller can obtain the transaction amount of the target transaction by using an acquiring device. For example, after the user purchases the target product from the seller, the seller can enter the transaction

amount information related to the transaction amount on the acquiring device.

[0069] Step 304: Send a fund write-off request to a server on a settlement side, where the fund write-off request is used by the server on the settlement side to write off a preferential amount for the target product from a fund node in a fund free-flowing region of the seller, the seller pre-deposits a fund greater than the preferential amount in the fund node, and the preferential amount is a preferential limit of the seller for the target product.

[0070] Step 306: Send a deduction request to an account of the user, where the deduction request is used to deduct, from the account of the user, an amount corresponding to a difference between the transaction amount and the preferential amount.

[0071] According to a technical solution in some optional embodiments, after the transferring the deduction amount from the account of the user to the account of the seller, the method further includes:

[0072] generating order information corresponding to the target transaction, where the order information includes information that the initial price is equal to a sum of the preferential amount and the deduction amount.

[0073] As shown in FIG. 4, some embodiments of this specification further provide a settlement method on an overall level, including the following steps:

[0074] Step 402: A server on an acquiring institution side sends a deduction request to a server on a settlement side for a target transaction, where the target transaction is a transaction generated by a user for a target product and a seller of the target product, and a deduction limit corresponding to the deduction request information is an initial price of the target product.

[0075] Step 404: The server on the settlement side determines a preferential amount for the target product, where a limit corresponding to the preferential amount is a preferential limit of the seller for the target product.

[0076] Step 406: Write off the preferential amount from a fund node in a fund free-flowing region of the seller, where the seller pre-deposits a fund greater than the preferential amount in the fund node.

[0077] Step 408: Determine, based on a difference between the initial price and the preferential amount, a payment amount to be deducted from an account of the user in response to the deduction request.

[0078] Step 410: Transfer a limit corresponding to the payment amount from the

account of the user, and transfer the limit corresponding to the preferential amount from the fund node to an account of the seller.

[0079] According to the foregoing description, as shown in FIG. 5, some embodiments of this specification further provide a signaling interaction diagram of a settlement method in an actual application scenario. The method includes:

[0080] Step 502: A merchant deposits a marketing fund in a fund node.

[0081] Step 504: The merchant sends marketing campaign configuration information to an acquiring server by using a terminal device.

[0082] Step 506: The acquiring server forwards the marketing campaign configuration information to a server on a settlement side.

[0083] Step 508: The merchant enters initial price information of a target product on an acquiring device.

[0084] Step 510: The acquiring device sends a deduction request to the acquiring server, where the deduction request is used to deduct a fund from an e-wallet of a user who purchases the target product.

[0085] Step 512: The acquiring server sends preferential amount write-off request information of a preferential amount of the target product to a server on a marketing side.

[0086] Step 514: The server on the marketing side forwards a preferential amount write-off request to the fund node in which the merchant pre-deposits a fund.

[0087] Step 516: The fund node transfers the preferential amount of the target product to an account of the merchant.

[0088] Step 518: The fund node feeds back preferential amount write-off result information of the target product to the server on the settlement side.

[0089] Step 520: After obtaining the preferential amount write-off result information, the server on the settlement side initiates a deduction request for a payment amount to the e-wallet of the user who purchases the target product.

[0090] Step 522: The server on the settlement side feeds back payment amount deduction result information to the acquiring server.

[0091] Step 524: The acquiring server forwards the payment amount deduction result information to the acquiring device.

[0092] Based on the same idea, some embodiments of this specification further provide an apparatus corresponding to the foregoing method. FIG. 6 is a schematic structural diagram of a settlement apparatus corresponding to FIG. 2 according to

some embodiments of this specification. As shown in FIG. 6, the apparatus may include:

[0093] a deduction request receiving module 602, configured to receive a deduction request initiated by an acquiring server for a target transaction to an account of a user, where the target transaction is a transaction generated by the user for a target product and a seller of the target product, and a deduction limit corresponding to the deduction request information is an initial price of the target product;

[0094] a preferential amount determining module 604, configured to determine a preferential amount for the target product, where a limit corresponding to the preferential amount is a preferential limit of the seller for the target product;

[0095] a preferential amount write-off module 606, configured to write off the preferential amount from a fund node in a fund free-flowing region of the seller, where the seller pre-deposits a fund greater than the preferential amount in the fund node; and

[0096] a payment amount determining module 608, configured to determine, based on a difference between the initial price and the preferential amount, a payment amount to be deducted from the account of the user in response to the deduction request.

[0097] Based on the apparatus in FIG. 6, some embodiments of this specification further provide some specific implementations of the apparatus, which are described below.

[0098] Optionally, the apparatus further includes:

[0099] a fund transfer instruction sending module, configured to send a fund transfer instruction to the fund node, where the fund transfer instruction is used to instruct the fund node to transfer the preferential amount to an account of the seller of the target product.

[0100] It may be understood that the foregoing modules refer to computer programs or program segments, which are configured to perform one or more specific functions. In addition, differentiation for the foregoing modules does not mean that actual program code must be separated.

[0101] Some embodiments of this specification further provide a settlement apparatus disposed on an acquiring server. As shown in FIG. 7, the apparatus may include:

[0102] a transaction amount information receiving module 702, configured to

receive a transaction amount corresponding to a target transaction, where the target transaction is a transaction generated by the user for a target product and a seller of the target product, and the transaction amount is an initial price of the target product;

[0103] a fund write-off request sending module 704, configured to send a fund write-off request to a server on a marketing settlement side, where the fund write-off request is used by the server on the marketing settlement side to write off a preferential amount for the target product from a fund node in a fund free-flowing region of the seller, the seller pre-deposits a fund greater than the preferential amount in the fund node, and the preferential amount is a preferential limit of the seller for the target product; and

[0104] a deduction request sending module 706, configured to send a deduction request to an account of the user, where the deduction request is used to deduct, from the account of the user, an amount corresponding to a difference between the transaction amount and the preferential amount.

[0105] Based on the same idea, some embodiments of this specification further provide a device corresponding to the foregoing method.

[0106] FIG. 8 is a schematic structural diagram of a settlement device corresponding to FIG. 2 according to some embodiments of this specification. As shown in FIG. 8, the device 800 may include:

[0107] at least one processor 810; and

[0108] a memory 830 communicatively connected to the at least one processor, where

[0109] the memory 830 stores an instruction 820 that can be executed by the at least one processor 810, and the instruction is executed by the at least one processor 810, to

enable the at least one processor 810 to perform the following operations:

[0110] receiving a deduction request initiated by an acquiring server for a target transaction to an account of a user, where the target transaction is a transaction generated by the user for a target product and a seller of the target product, and a deduction limit corresponding to the deduction request information is an initial price of the target product;

[0111] determining a preferential amount for the target product, where a limit corresponding to the preferential amount is a preferential limit of the seller for the target product;

[0112] writing off the preferential amount from a fund node in a fund free-flowing

region of the seller, where the seller pre-deposits a fund greater than the preferential amount in the fund node; and

[0113] determining, based on a difference between the initial price and the preferential amount, a payment amount to be deducted from the account of the user in response to the deduction request.

[0114] FIG. 9 is a schematic structural diagram of a settlement device corresponding to FIG. 3 according to some embodiments of this specification. As shown in FIG. 9, the device 900 may include:

[0115] at least one processor 910; and

[0116] a memory 930 communicatively connected to the at least one processor, where

[0117] the memory 930 stores an instruction 920 that can be executed by the at least one processor 910, and the instruction is executed by the at least one processor 910, to enable the at least one processor 910 to perform the following operations:

[0118] receiving a transaction amount corresponding to a target transaction, where the target transaction is a transaction generated by the user for a target product and a seller of the target product, and the transaction amount is an initial price of the target product;

[0119] sending a fund write-off request to a server on a settlement side, where the fund write-off request is used by the server on the settlement side to write off a preferential amount for the target product from a fund node in a fund free-flowing region of the seller, the seller pre-deposits a fund greater than the preferential amount in the fund node, and the preferential amount is a preferential limit of the seller for the target product; and

[0120] sending a deduction request to an account of the user, where the deduction request is used to deduct, from the account of the user, an amount corresponding to a difference between the transaction amount and the preferential amount.

[0121] Based on the same idea, some embodiments of this specification further provide a computer-readable medium corresponding to the method shown in FIG. 2.

The computer-readable medium stores a computer-readable instruction, and the computer-readable instruction can be executed by a processor to implement the following method:

[0122] receiving a deduction request initiated by an acquiring server for a target transaction to an account of a user, where the target transaction is a transaction

generated by the user for a target product and a seller of the target product, and a deduction limit corresponding to the deduction request information is an initial price of the target product;

[0123] determining a preferential amount for the target product, where a limit  
5 corresponding to the preferential amount is a preferential limit of the seller for the target product;

[0124] writing off the preferential amount from a fund node in a fund free-flowing region of the seller, where the seller pre-deposits a fund greater than the preferential amount in the fund node; and

10 [0125] determining, based on a difference between the initial price and the preferential amount, a payment amount to be deducted from the account of the user in response to the deduction request.

[0126] Some embodiments of this specification further provide a computer-readable medium corresponding to the method shown in FIG. 3. The computer-readable  
15 medium stores a computer-readable instruction, and the computer-readable instruction can be executed by a processor to implement the following method:

[0127] receiving a transaction amount corresponding to a target transaction, where the target transaction is a transaction generated by the user for a target product and a seller of the target product, and the transaction amount is an initial price of the target  
20 product;

[0128] sending a fund write-off request to a server on a settlement side, where the fund write-off request is used by the server on the settlement side to write off a preferential amount for the target product from a fund node in a fund free-flowing region of the seller, the seller pre-deposits a fund greater than the preferential amount  
25 in the fund node, and the preferential amount is a preferential limit of the seller for the target product; and

[0129] sending a deduction request to an account of the user, where the deduction request is used to deduct, from the account of the user, an amount corresponding to a difference between the transaction amount and the preferential amount.

30 [0130] Some specific embodiments of this specification have been described above. In some cases, actions or steps described in the claims may be performed in a sequence different from that in some embodiments and desired results can still be achieved. In addition, processes described in the accompanying drawings do not necessarily require a specific order or a sequential order shown to achieve the desired

results. In some implementations, multitasking and parallel processing are also possible or may be advantageous.

[0131] Some embodiments of this specification are described in a progressive way. For same or similar parts of the embodiments, mutual references can be made to the  
5       embodiments.

[0132] The apparatus and the device provided in some embodiments of this specification correspond to the method. Therefore, the apparatus and the device also have similar advantageous technical effects to the corresponding method. Because the advantageous technical effects of the method have been described above in detail,  
10       descriptions for the advantageous technical effects of the corresponding apparatus and device are omitted here for simplicity.

[0133] In the 1990s, whether a technical improvement is a hardware improvement (for example, an improvement to a circuit structure, such as a diode, a transistor, or a switch) or a software improvement (an improvement to a method procedure) can be  
15       clearly distinguished. However, as technologies develop, current improvements to many method procedures can be considered as direct improvements to hardware circuit structures. A designer usually programs an improved method procedure into a hardware circuit to obtain a corresponding hardware circuit structure. Therefore, a method procedure can be improved using a hardware entity module. For example, a  
20       programmable logic device (PLD) (for example, a field programmable gate array (FPGA)) is such an integrated circuit, and a logical function of the programmable logic device is determined by a user through device programming. The designer performs programming to "integrate" a digital system to a PLD without requesting a chip manufacturer to design and produce an application-specific integrated circuit  
25       chip. In addition, at present, instead of manually manufacturing an integrated circuit chip, this type of programming is mostly implemented by using "logic compiler" software. The programming is similar to a software compiler used to develop and write a program. Original code needs to be written in a particular programming language for compilation. The language is referred to as a hardware description  
30       language (HDL). There are many HDLs, such as the Advanced Boolean Expression Language (ABEL), the Altera Hardware Description Language (AHDL), Confluence, the Cornell University Programming Language (CUPL), HDCal, the Java Hardware Description Language (JHDL), Lava, Lola, MyHDL, PALASM, and the Ruby Hardware Description Language (RHDL). The very-high-speed integrated circuit

hardware description language (VHDL) and Verilog are most commonly used. A person skilled in the art should also understand that a hardware circuit that implements a logical method procedure can be readily obtained once the method procedure is logically programmed by using the some described hardware description languages and is programmed into an integrated circuit.

**[0134]** A controller can be implemented by using any appropriate method. For example, the controller may be a microprocessor or a processor, or a computer-readable medium that stores computer-readable program code (such as software or firmware) that can be executed by the microprocessor or the processor, a logic gate, a switch, an application-specific integrated circuit (ASIC), a programmable logic controller, or a built-in microprocessor. Examples of the controller include but are not limited to the following microprocessors: ARC 625D, Atmel AT91SAM, Microchip PIC18F26K20, and Silicone Labs C8051F320. The memory controller can also be implemented as a part of the control logic of the memory. A person skilled in the art also knows that, in addition to implementing the controller by using the computer-readable program code, logic programming can be performed on method steps to allow the controller to implement the same function in forms of the logic gate, the switch, the application-specific integrated circuit, the programmable logic controller, and the built-in microcontroller. Therefore, the controller can be considered as a hardware component, and an apparatus configured to implement various functions in the controller can also be considered as a structure in the hardware component. Alternatively, the apparatus configured to implement various functions can even be considered as both a software module implementing the method and a structure in the hardware component.

**[0135]** The system, apparatus, module, or unit illustrated in the foregoing embodiments can be implemented by using a computer chip or an entity, or can be implemented by using a product having a specific function. A typical implementation device is a computer. Specifically, for example, the computer may be a personal computer, a laptop computer, a cellular phone, a camera phone, a smart phone, a personal digital assistant, a media player, a navigation device, an e-mail device, a game console, a tablet computer, a wearable device, or any combination of these devices.

**[0136]** For ease of description, the above-mentioned apparatus is described by dividing functions into various units. Certainly, when this application is implemented,

the functions of each unit may be implemented in one or more pieces of software and/or hardware.

[0137] A person skilled in the art should understand that some embodiments of the present invention can be provided as a method, a system, or a computer program product. Therefore, the present invention can use a form of hardware only  
5       embodiments, software only embodiments, or embodiments with a combination of software and hardware. Further, the present invention can take a form of a computer program product implemented on one or more computer-usable storage media (including but not limited to a disk memory, a CD-ROM, an optical memory, and the  
10       like) containing computer-usable program code.

[0138] The present invention is described with reference to the flowcharts and/or block diagrams of the method, the device (system), and the computer program product according to some embodiments of the present invention. It should be understood that each process and/or each block in the flowcharts and/or the block diagrams and a  
15       combination of a process and/or a block in the flowcharts and/or block diagrams can be implemented by computer program instructions. These computer program instructions can be provided for a general-purpose computer, a dedicated computer, an embedded processor, or a processor of another programmable data processing device to generate a machine, so the instructions executed by the computer or the processor  
20       of the another programmable data processing device generate an apparatus for implementing a specific function in one or more processes in the flowcharts and/or in one or more blocks in the block diagrams.

[0139] These computer program instructions can be stored in a computer-readable memory that can instruct the computer or the another programmable data processing  
25       device to work in a specific way, so the instructions stored in the computer-readable memory generate an artifact that includes an instruction apparatus. The instruction apparatus implements a specific function in one or more processes in the flowcharts and/or in one or more blocks in the block diagrams.

[0140] These computer program instructions can alternatively be loaded onto the  
30       computer or the another programmable data processing device, so that a series of operations and steps are performed on the computer or the another programmable device, thereby generating computer-implemented processing. Therefore, the instructions executed on the computer or the another programmable device provide steps for implementing a specific function in one or more processes in the flowcharts

and/or in one or more blocks in the block diagrams.

[0141] In a typical configuration, a computing device includes one or more processors (CPUs), an input/output interface, a network interface, and a memory.

5 [0142] The memory may include a non-persistent memory, a random access memory (RAM), a non-volatile memory, and/or another form that are in a computer-readable medium, for example, a read-only memory (ROM) or a flash memory (flash RAM). The memory is an example of the computer-readable medium.

10 [0143] The computer-readable medium includes a persistent and a non-persistent, a removable and a non-removable medium, which implement information storage by using any method or technology. Information may be a computer-readable instruction, a data structure, a program module, or other data. Examples of the computer storage medium include but are not limited to a phase change random access memory (PRAM), a static random access memory (SRAM), a dynamic random access memory (DRAM), another type of RAM, a ROM, an electrically erasable programmable  
15 read-only memory (EEPROM), a flash memory or another memory technology, a compact disc read-only memory (CD-ROM), a digital versatile disc (DVD) or another optical storage, a cassette magnetic tape, a magnetic tape/magnetic disk storage, another magnetic storage device, or any other non-transmission medium. The computer storage medium can be used to store information accessible by a computing  
20 device. Based on the definition in this specification, the computer-readable medium does not include transitory media such as a modulated data signal and carrier.

[0144] It should be further noted that, the terms "include", "comprise", or any other variant thereof are intended to cover a non-exclusive inclusion, so a process, a method, a product or a device that includes a list of elements not only includes those elements  
25 but also includes other elements which are not expressly listed, or further includes elements inherent to such process, method, product or device. Without more constraints, an element preceded by "includes a ..." does not preclude the existence of additional identical elements in the process, method, product or device that includes the element.

30 [0145] This application may be described in a general context of a computer-executable instruction that is executed by a computer, for example, a program module. Generally, the program module includes a routine, a program, an object, a component, a data structure, etc. executing a specific task or implementing a specific abstract data type. This application can alternatively be practiced in

distributed computing environments in which tasks are performed by remote processing devices that are connected through a communication network. In a distributed computing environment, the program module can be located in both local and remote computer storage media including storage devices.

- 5   **[0146]** The foregoing descriptions are merely some embodiments of this application, and are not intended to limit this application. A person skilled in the art can make various changes and variations to this application. Any modification, equivalent replacement, or improvement made without departing from the spirit and principle of this application shall fall within the scope of the claims in this application.

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## CLAIMS

What is claimed is:

1. A settlement method, comprising:

5 receiving a deduction request initiated by an acquiring server for a target transaction to an account of a user, wherein the target transaction is a transaction generated by the user for a target product and a seller of the target product, and a deduction limit corresponding to the deduction request information is an initial price of the target product;

10 determining a preferential amount for the target product, wherein a limit corresponding to the preferential amount is a preferential limit of the seller for the target product;

writing off the preferential amount from a fund node in a fund free-flowing region of the seller, wherein the seller pre-deposits a fund greater than the preferential amount in the fund node; and

15 determining, based on a difference between the initial price and the preferential amount, a payment amount to be deducted from the account of the user in response to the deduction request.

20 2. The method according to claim 1, further comprising: sending a fund transfer instruction to the fund node, wherein the fund transfer instruction is used to instruct the fund node to transfer the preferential amount to an account of the seller of the target product.

25 3. The method according to claim 1, wherein the determining, based on a difference between the initial price and the preferential amount, a payment amount to be deducted from the account of the user in response to the deduction request specifically comprises:

determining the difference between the initial price and the preferential amount as a limit corresponding to the payment amount to be deducted from the account of the user; and

30 deducting the limit corresponding to the payment amount from the account of the user.

4. The method according to claim 1, before the receiving a deduction request initiated by an acquiring server for a target transaction to an account of a user, comprising:

receiving marketing configuration information sent by the acquiring server, wherein the marketing configuration information comprises preferential limit information of the seller for the target product; and

storing the marketing configuration information.

- 5        5. The method according to claim 1, before the receiving a deduction request initiated by an acquiring server for a target transaction to an account of a user, comprising:

receiving marketing configuration information sent by a server of an operator of the fund node, wherein the marketing configuration information comprises  
10        preferential limit information of the seller for the target product; and

storing the marketing configuration information.

6. The method according to claim 1, after the determining, based on a difference between the initial price and the preferential amount, a payment amount to be deducted from the account of the user in response to the deduction request, further  
15        comprising:

sending a transfer instruction to the fund node, wherein the transfer instruction is used to instruct the fund node to transfer a second amount to an account of the seller.

7. The method according to claim 1, after the determining, based on a difference between the initial price and the preferential amount, a payment amount to be  
20        deducted from the account of the user in response to the deduction request, further comprising:

sending a deduction request to a server of an operator of the account of the user, wherein the deduction request is used to request to transfer the deducted payment amount from the account of the user to an account of the seller.

- 25        8. A settlement method, comprising:

receiving transaction amount information corresponding to a target transaction, wherein the target transaction is a transaction generated by the user for a target product and a seller of the target product, and an amount corresponding to the transaction amount information is an initial price of the target product;

- 30        sending a fund write-off request to a server on a marketing settlement side, wherein the fund write-off request is used by the server on the marketing settlement side to write off a preferential amount for the target product from a fund node in a fund free-flowing region of the seller, the seller pre-deposits a fund greater than the preferential amount in the fund node, and the preferential amount is a preferential

limit of the seller for the target product; and

sending a deduction request to an account of the user, wherein the deduction request is used to deduct, from the account of the user, an amount corresponding to a difference between the amount corresponding to the transaction amount information and the preferential amount.

9. The method according to claim 8, after the sending a deduction request to an account of the user, wherein the deduction request is used to deduct, from the account of the user, an amount corresponding to a difference between the amount corresponding to the transaction amount information and the preferential amount, further comprising:

generating order information corresponding to the target transaction, wherein the order information comprises information that the initial price is equal to a sum of the preferential amount and the deduction amount.

10. A settlement method, comprising:

sending, by a server on an acquiring institution side, a deduction request to a server on a settlement side for a target transaction, wherein the target transaction is a transaction generated by a user for a target product and a seller of the target product, and a deduction limit corresponding to the deduction request information is an initial price of the target product;

determining, by the server on the settlement side, a preferential amount for the target product, wherein a limit corresponding to the preferential amount is a preferential limit of the seller for the target product;

writing off the preferential amount from a fund node in a fund free-flowing region of the seller, wherein the seller pre-deposits a fund greater than the preferential amount in the fund node;

determining, based on a difference between the initial price and the preferential amount, a payment amount to be deducted from an account of the user in response to the deduction request; and

transferring a limit corresponding to the payment amount from the account of the user, and transferring the limit corresponding to the preferential amount from the fund node to an account of the seller.

11. A settlement apparatus, comprising:

a deduction request receiving module, configured to receive a deduction request initiated by an acquiring server for a target transaction to an account of a user,

wherein the target transaction is a transaction generated by the user for a target product and a seller of the target product, and a deduction limit corresponding to the deduction request information is an initial price of the target product;

5 a preferential amount determining module, configured to determine a preferential amount for the target product, wherein a limit corresponding to the preferential amount is a preferential limit of the seller for the target product;

a preferential amount write-off module, configured to write off the preferential amount from a fund node in a fund free-flowing region of the seller, wherein the seller pre-deposits a fund greater than the preferential amount in the fund node; and

10 a payment amount determining module, configured to determine, based on a difference between the initial price and the preferential amount, a payment amount to be deducted from the account of the user in response to the deduction request.

12. The apparatus according to claim 11, further comprising:

15 a fund transfer instruction sending module, configured to send a fund transfer instruction to the fund node, wherein the fund transfer instruction is used to instruct the fund node to transfer the preferential amount to an account of the seller of the target product.

13. A settlement apparatus, comprising:

20 a transaction amount information receiving module, configured to receive transaction amount information corresponding to a target transaction, wherein the target transaction is a transaction generated by the user for a target product and a seller of the target product, and an amount corresponding to the transaction amount information is an initial price of the target product;

25 a fund write-off request sending module, configured to send a fund write-off request to a server on a marketing settlement side, wherein the fund write-off request is used by the server on the settlement side to write off a preferential amount for the target product from a fund node in a fund free-flowing region of the seller, the seller pre-deposits a fund greater than the preferential amount in the fund node, and the preferential amount is a preferential limit of the seller for the target product; and

30 a deduction request sending module, configured to send a deduction request to an account of the user, wherein the deduction request is used to deduct, from the account of the user, an amount corresponding to a difference between the amount corresponding to the transaction amount information and the preferential amount.

14. A settlement device, comprising:

at least one processor; and

at least one memory communicatively connected to the at least one processor,  
wherein

the memory stores an instruction that can be executed by the at least one  
5 processor, and the instruction is executed by the at least one processor to enable the at  
least one processor to perform the following operations:

receiving a deduction request initiated by an acquiring server for a target  
transaction to an account of a user, wherein the target transaction is a transaction  
generated by the user for a target product and a seller of the target product, and a  
10 deduction limit corresponding to the deduction request information is an initial price  
of the target product;

determining a preferential amount for the target product, wherein a limit  
corresponding to the preferential amount is a preferential limit of the seller for the  
target product;

15 writing off the preferential amount from a fund node in a fund free-flowing  
region of the seller, wherein the seller pre-deposits a fund greater than the preferential  
amount in the fund node; and

determining, based on a difference between the initial price and the preferential  
amount, a payment amount to be deducted from the account of the user in response to  
20 the deduction request.

15. A settlement device, comprising:

at least one processor; and

at least one memory communicatively connected to the at least one processor,  
wherein

25 the memory stores an instruction that can be executed by the at least one  
processor, and the instruction is executed by the at least one processor to enable the at  
least one processor to perform the following operations:

receiving transaction amount information corresponding to a target transaction,  
wherein the target transaction is a transaction generated by the user for a target  
30 product and a seller of the target product, and an amount corresponding to the  
transaction amount information is an initial price of the target product;

sending a fund write-off request to a server on a marketing settlement side,  
wherein the fund write-off request is used by the server on the marketing settlement  
side to write off a preferential amount for the target product from a fund node in a

fund free-flowing region of the seller, the seller pre-deposits a fund greater than the preferential amount in the fund node, and the preferential amount is a preferential limit of the seller for the target product; and

5        sending a deduction request to an account of the user, wherein the deduction request is used to deduct, from the account of the user, an amount corresponding to a difference between the amount corresponding to the transaction amount information and the preferential amount.

10        16. A computer-readable medium, wherein the computer-readable medium stores a computer-readable instruction, and the computer-readable instruction can be executed by a processor to implement the settlement method according to any one of claims 1 to 10.