DESCRIPTION

TITLE OF INVENTION: TRANSACTION IMPLEMENTATION METHOD, APPARATUS, DEVICE, AND STORAGE MEDIUM

TECHNICAL FIELD

[0001] The present disclosure relates to the field of data processing technologies, and in particular to a transaction implementation method, an apparatus, a device, and a storage medium.

BACKGROUND

[0002] In an investment and transaction scenario of various financial products, for a customer with partially idle cash assets in a brokerage account, a cash management service system provided by the brokerage is typically used to reinvest the customers' idle funds into a profitable financial product, so as to maximize the value and benefit of the idle funds.

[0003] However, a transaction method used by the current cash management service system is relatively limited and may not meet normal transaction requirements in various diversified investment scenarios.

SUMMARY

[0004] The embodiments of the present disclosure may provide a transaction implementation method, an apparatus, a device, and a storage medium, which may realize a comprehensive transaction for any registered user in a diversified transaction scenario, including various transaction targets and various idle resources, from a perspective of a target project, ensuring flexibility and accuracy of transaction implementation.

[0005] In a first aspect, the embodiments of the present disclosure may provide a transaction implementation method. The method may be applied to a first transaction server, and may include: obtaining idle resource information of a registered user; determining, in response to a project registration operation of the registered user, a resource transaction record of the registered user corresponding to a target project based on the idle resource information of the registered user; reporting the resource transaction record and an interest rate file of the target project to a second transaction server, enabling the second transaction server to generate a project transaction record based on resource transaction records of different registered users corresponding to the target project, trigger a project transaction of the target project, and update

a gain resource amount of the registered user based on the interest rate file of the target project in response to project transaction execution success information; receiving the gain resource amount of the registered user under the target project returned by the second transaction server, and updating the idle resource information of the registered user.

[0006] In a second aspect, the embodiments of the present disclosure may provide a transaction implementation method. The method may be applied to a second transaction server, and may include: receiving a plurality of resource transaction records of different registered users corresponding to a target project and an interest rate file of the target project reported by a first transaction server; generating a corresponding project transaction record based on the resource transaction records of different registered users corresponding to the target project, and triggering a project transaction of the target project; updating, in response to project transaction execution success information, a gain resource amount of each of the registered users based on the interest rate file of the target project; returning the gain resource amount of each of the registered users to the first transaction server, enabling the first transaction server to update idle resource information of each of the registered users based on the gain resource amount.

[0007] In a third aspect, the embodiments of the present disclosure may provide a transaction implementation apparatus. The apparatus may be configured on a first transaction server, and may include: an idle resource obtaining module, configured to obtain idle resource information of a registered user; a resource transaction module, configured to determine a resource transaction record of the registered user corresponding to a target project based on the idle resource information of the registered user, in response to a project registration operation of the registered user; a first project transaction module, configured to report the resource transaction record and an interest rate file of the target project to a second transaction server, enabling the second transaction server to generate a project transaction record based on resource transaction records of different registered users corresponding to the target project, trigger a project transaction of the target project, and update a gain resource amount of the registered user based on the interest rate file of the target project in response to project transaction execution success information; a first idle resource update module, configured to receive the gain resource amount of the registered user under the target project returned by the second transaction server, and to update the idle resource information of the registered user.

[0008] In a fourth aspect, the embodiments of the present disclosure may provide a transaction implementation apparatus. The apparatus may be configured on a second transaction server, and may include: a resource transaction record receiving module, configured to receive a plurality of resource transaction records of different registered users corresponding to a target

project and an interest rate file of the target project reported by a first transaction server; a second project transaction module, configured to generate a corresponding project transaction record based on the resource transaction records of different registered users corresponding to the target project, and to trigger a project transaction of the target project; a gain resource update module, configured to update a gain resource amount of each of the registered users based on the interest rate file of the target project in response to project transaction execution success information; a second idle resource update module, configured to return the gain resource amount of each of the registered users to the first transaction server, enabling the first transaction server to update idle resource information of each of the registered users based on the gain resource amount.

[0009] In a fifth aspect, the embodiments of the present disclosure may provide an electronic device. The electronic device may include a processor and a memory. The memory may be configured to store a computer program, and the processor may be configured to call and run the computer program stored in the memory to execute the transaction implementation method provided in the first aspect and the second aspect of the present disclosure.

[0010] In a sixth aspect, the embodiments of the present disclosure may provide a non-transitory computer-readable storage medium, configured to store a computer program. The computer program may be configured to enable a computer to execute the transaction implementation method provided in the first aspect and the second aspect of the present disclosure.

[0011] In the technical solution provided by the embodiments of the present disclosure, the first transaction server may obtain the idle resource information of the registered user in real time, and determine the resource transaction record of the registered user corresponding to the registered target project based on the idle resource information in a case where the project registration operation of the registered user is detected. The resource transaction record and the interest rate file of the target project may be reported to the second transaction server, so that the second transaction server may generate the project transaction record based on the resource transaction records of different registered users corresponding to the target project, trigger the project transaction of the target project, and update the gain resource amount of each registered user based on the interest rate file of the target project after the successful execution of the project transaction. In a case where the first transaction server receives the gain resource amount of the registered user under the target project returned by the second transaction server, the first transaction server may update the idle resource information of the registered user accordingly. From the perspective of the target project, the entire transaction process initiated

by the registered user using any type of idle resource for any type of transaction target may be completed, realizing the comprehensive transaction for any registered user in the diversified transaction scenario, including multiple transaction targets and multiple idle resources, and ensuring the flexibility and accuracy of transaction implementation.

BRIEF DESCRIPTION OF THE DRAWINGS

[0012] In order to describe the technical solutions of some embodiments of the present disclosure more clearly, a brief introduction may be given below to the drawings that are required in the description of the embodiments. It is apparent that the drawings described below merely illustrate some embodiments of the present disclosure. Other drawings may further be obtained by those skilled in the art without inventive effort based on these drawings.

[0013] FIG. 1 is a schematic principle view of transaction implementation between a first transaction server and a second transaction server according to some embodiments of the present disclosure.

[0014] FIG. 2 is a schematic flowchart of a transaction implementation method according to some embodiments of the present disclosure.

[0015] FIG. 3 is a schematic flowchart of another transaction implementation method according to some embodiments of the present disclosure.

[0016] FIG. 4 is a schematic flowchart of a transaction interaction process between a first transaction server and a second transaction server according to some embodiments of the present disclosure.

[0017] FIG. 5 is a schematic block view of a transaction implementation apparatus according to some embodiments of the present disclosure.

[0018] FIG. 6 is a schematic block view of another transaction implementation apparatus according to some embodiments of the present disclosure.

[0019] FIG. 7 is a schematic block view of an electronic device according to some embodiments of the present disclosure.

DETAILED DESCRIPTION

[0020] The technical solutions of the embodiments of the present disclosure will be described clearly and completely below in conjunction with the accompanying drawings of the embodiments of the present disclosure. It is apparent that the embodiments described are merely a part of the embodiments of the present disclosure, rather than all of the embodiments. Based on the embodiments of the present disclosure, all other embodiments obtained by those skilled in the art without inventive effort shall fall within the protection scope of the present

disclosure.

[0021] It should be noted that the terms "first", "second", etc. in the specification, claims, and the accompanying drawings of the present disclosure are used to distinguish similar objects, and are not necessarily used to describe a specific order or sequence. It should be understood that the data used in this way may be interchanged under appropriate circumstances, so that the embodiments of the present disclosure described herein may be implemented in an order other than those illustrated or described herein. In addition, the terms "include", "comprise", or any other variation thereof are intended to cover non-exclusive inclusion. For example, a process, method, system, product, or server including a series of steps or units is not necessarily limited to the clearly listed steps or units, but may include other steps or units not clearly listed or inherent to the process, method, product, or device.

[0022] In various business investment and transaction scenarios, the user may reinvest customers' idle resources into a financial product represented by various transaction targets through a cash management service system provided by a brokerage, so as to maximize the value and benefit of the idle resources. The transaction targets may be financial products such as stocks, funds, and options, or a combination of one or more of stocks, funds, options, etc. The idle resources may be balance information of different currencies in different accounts that the customer may use to trade various transaction targets.

[0023] The customers' idle resources may have multiple types, such as multiple currencies, and may support investment in financial products represented by multiple transaction targets. In order to realize a comprehensive transaction for any user in a diversified transaction scenario, including multiple transaction targets and multiple idle resources, the embodiments of the present disclosure may introduce a concept of a target project. In a case where a customer initiates a transaction for a certain transaction target using idle resources of a certain currency, the transaction may be allocated a corresponding target project based on a currency type of the idle resources used and the transaction target involved. For each pre-deployed target project, each target project may operate independently. Thus, the embodiments of the present disclosure may accurately realize a transaction process initiated by any user using any type of idle resource for any type of transaction target from a perspective of the target project.

[0024] It can be understood that the entire transaction process of reinvesting the customer's idle resources into any financial product may be an overall process from an initiation of the transaction to a distribution of corresponding benefits to the customer after the transaction is successful. To ensure the efficiency and accuracy of transaction implementation, as shown in FIG. 1, a cash management service system provided by a brokerage may include a first

transaction server and a second transaction server.

[0025] The first transaction server may function as a custodian of a customer idle resource and provide a corresponding management solution for the customer idle resource, such as management of resource balance, interest rate, interest calculation calendar, dividend distribution, view service, etc. The second transaction server may function as an upstream server of the first transaction server and provide corresponding transaction, interest calculation, dividend distribution, and other capabilities for any transaction initiated by the first transaction server for the customer idle resource.

[0026] In order to ensure transaction accuracy for the first transaction server and the second transaction server, multiple functional modules may be established within the first transaction server and the second transaction server respectively by decomposing various transaction functions supported by the first transaction server and the second transaction server, so as to ensure the accurate transaction implementation.

[0027] The functional modules within the first transaction server and the second transaction server may be described in detail from the following two aspects, respectively.

[0028] In a first aspect, for the first transaction server, in accordance with requirements of satisfying internal functional cohesion of services and clear boundaries between services, based on differences in service functions and target objects of the first transaction server, the services of the first transaction server may be divided into two layers: a core business layer and a presentation layer. The core business layer may include functional modules such as a first customer management service, a customer balance management service, a first project management service, a calendar service, an upstream report storage service, an operation report service, a dividend distribution service, and a first interaction script. The presentation layer may include functional modules such as a first management backend view service and a client view service.

[0029] As shown in FIG. 1, the service functions of each functional module within the first transaction server may be as follows.

[0030] 1) The first customer management service

[0031] The first customer management service may be configured to manage the registration (i.e., joining) and withdrawal status of various customers, provide interfaces for customer registration and withdrawal, and support a configuration of a specific customer package, so as to manage a whitelist of each target project.

[0032] 2) The customer balance management service

[0033] The customer balance management service may be configured to manage resource

balances of various customers in different currencies, and automatically generate a corresponding transaction record based on the balance status and registration status of each customer, so as to reinvest the customer's idle resources. Moreover, the customer balance management service may support interaction with the upstream report storage service to reconcile a resource balance of each customer and update the resource balance of each customer after reconciliation.

[0034] To ensure accurate implementation of functions of the customer balance management service, a variety of external interfaces may be provided to realize various reconciliation functions of customer idle resource balances.

[0035] 3) The first project management service

[0036] The target project may be an important entity newly introduced in the cash management service system, with each target project capable of operating independently. Moreover, each target project may have its own registered customers and may independently manage transactions, interest calculation, and balances for the customers. Therefore, the first project management service may abstract the entity of the target project and manage the entity of each target project to support the creation and update of the target project. In this way, the first transaction server may be able to configure attributes of the target project more flexibly, so as to adapt to the business market demands of different objects.

[0037] 4) The calendar service

[0038] The calendar service may be configured to manage a trading calendar and a dividend distribution calendar for each target project. The trading calendar may at least mark trading days of each target project. The dividend distribution calendar may at least mark dividend distribution days of each target project.

[0039] 5) The upstream report storage service

[0040] In the transaction process, to support the second transaction server to accurately perform transaction, interest calculation, dividend distribution, and other processing for any transaction initiated by the first transaction server, the first transaction server may typically send customer's registration documents, transaction documents, relevant interest rate files, etc. to the second transaction server to perform a corresponding transaction calculation operation. Considering issues such as document compliance and auditing, an upstream report from the second transaction server after transaction processing may need to be stored locally in the first transaction server.

[0041] However, since the upstream report neither belongs to customer management nor can be divided into target project management, the upstream report storage service of the first

transaction server may support database storage of the upstream report, provide reading and writing capabilities of the upstream report, provide corresponding reading, transaction, and registration logic for the customer balance management service, etc., and provide query capabilities for a local database.

[0042] 6) The operation report service

[0043] Internal management personnel have the demand to view operation reports from the trading day perspective and customer perspective. Neither the first customer management service nor the customer balance management service may bear cross-boundary demands. Therefore, an independent operation report service may be established within the first transaction server to be responsible for managing data summary reports at perspectives such as customers, customer balances, and target projects, and generating operation-related report data.

[0044] 7) The dividend distribution service

[0045] The dividend distribution service may be configured to distribute a resource income of the customer's idle resources during an upstream transaction to the customer, that is, distribute a customer's transaction income resource to a corresponding securities account.

[0046] The dividend distribution service may mainly be implemented using Python-based spring boot architecture (SBA) technology, supporting the distribution of transaction income resources obtained from a corresponding target project in the cash management service system to customers. In the first transaction server, scenarios where dividends need to be distributed to customers based on the target project and certain income (e.g., tax deduction) needs to be levied on customers should be considered.

[0047] Thus, the dividend distribution service may use program_id to represent the target project of the dividend distribution, gross_amount to represent an initial dividend resource amount before collection, and withholding_tax to represent dividend collection information corresponding to the dividend distribution.

[0048] 8) The first interaction script

[0049] The first interaction script may be responsible for data interaction between the first transaction server and the second transaction server, adopting a SSH file transfer protocol (SFTP) interaction method. The first interaction script may convert internal system data of the first transaction server into a standard file definition format to interact with the second transaction server without exposing implementation details of the internal system data of the first transaction server. The first interaction script may support the sending of data such as customer registration documents, transaction documents, and relevant interest rate files (denoted as Outbound), and may also support the processing of upstream reports such as

reported balances, balance allocations, dividend files, and transaction project interest rate files from the second transaction server (denoted as Inbound).

[0050] The first interaction script may obtain all target projects (including invalidated target projects) from the first project management service, and determine whether a report of each target project has been completed or an output file of a target project has been interrupted (i.e., outbound cut-off), so as to obtain corresponding relevant project data of a target project that has been completed or an output file of the target project that has been interrupted, and generate a transaction attribute file of the target project to send to the second transaction server.

[0051] 9) The first management backend view service

[0052] The first management backend view service may be a service connected to a web management backend. The first management backend view service may rely on an interface provided by a core business service in the first transaction server to provide an external service, aggregate the capabilities of the core business service to provide to a management party, and meanwhile process a presentation logic that the core business service may not care about. Therefore, the management backend view service may be separated from the first transaction server.

[0053] 10) The client view service

[0054] For customers, it is very common to have data aggregation requirements such as viewing customer registration status and balance details on a front end. Therefore, a client view service may be added to the first transaction server, and the following interface may be provided for the client view service: retrieving transaction service data of the first transaction server, integrating the transaction service data, and providing the transaction service data to a client. The client view service may provide an intermediate layer of view to separate a front-end service and a back-end service in the first transaction server.

[0055] In a second aspect, for the second transaction server, in accordance with requirements of satisfying internal functional cohesion of services and clear boundaries between services, based on differences in service functions and target objects of the second transaction server, the services of the second transaction server may be divided into two layers: a core business layer and a presentation layer. The core business layer may include functional modules such as a second customer management service, a second project management service, a report service, a transaction management service, and a second interaction script. The presentation layer may include a second management backend view service.

[0056] As shown in FIG. 1, the service functions of each functional module within the second transaction server may be as follows.

[0057] 1) The second customer management service

[0058] Customers of the first transaction server need to register customer information in the second transaction server. Therefore, the second customer management service may be responsible for the management of customer registration information, and manage an account list under the customer and customer's interest rate gradient information, etc.

[0059] 2) The second project management service

[0060] The target project may be an important entity newly introduced in the cash management service system, with each target project capable of operating independently. Moreover, each target project may have its own registered customers and may independently manage transactions, interest calculation, and balances for the customers. Therefore, the second project management service may abstract the entity of the target project and manage the entity of each target project.

[0061] 3) The report service

[0062] The first transaction server may typically send the customer's registration documents, transaction documents, relevant interest rate files, etc., to the second transaction server to perform corresponding transaction calculation operation. Considering issues such as document compliance and auditing, the second transaction server may generate report data after transaction processing, and the customer's report data needs to be stored locally.

[0063] However, since the report data neither belongs to customer management nor can be divided into transaction project management, the report service of the second transaction server may support database storage of upstream report, provide reading and writing capabilities of the upstream report, provide corresponding reading, transaction, and registration logic for the transaction management service, the second customer management service, etc., and provide query capabilities for the local database.

[0064] 4) The transaction management service

[0065] The transaction management service may function as a core of the entire second transaction server, and may be configured to process a subscription transaction or a redemption transaction initiated by the customers. Since the customer's idle resources may be subject to customer's interest calculation based on a tiered benefit enjoyed by the customer, and the customer's resource balances of each target project may be managed. Meanwhile, the target project, the customer's resource balance, and the interest of the balance may all be generated by transaction activities. The transaction may represent an action, and the resource may reflect a state after the transaction. Therefore, the second transaction server may separate the transaction management service to uniformly manage various transaction activities, involving

the core processing logic of transactions and customer resources.

[0066] 5) The second interaction script

[0067] The second interaction script may be responsible for data interaction between the first transaction server and the second transaction server, adopting an SFTP interaction method. The second interaction script may convert internal system data of the second transaction server into a standard file definition format to interact with the first transaction server without exposing implementation details of the internal system data of the second transaction server. The second interaction script may process data such as customer registration documents, transaction documents, and relevant interest rate files from the first transaction server (denoted as Inbound), and may also return data such as confirmed reported balances, balance allocations, dividend files, and transaction project interest rate files to the first transaction server (denoted as Outbound).

[0068] 6) The second management backend view service

[0069] The second management backend view service may be a service connected to a web management backend. The second management backend view service may rely on an interface provided by a core business service in the second transaction server to provide an external service, aggregate the capabilities of the core business service to provide to a management party, and meanwhile process a presentation logic that the core business service may not care about. Therefore, the management backend view service may be separated from the second transaction server.

[0070] In summary, to ensure the flexibility and accuracy of transaction implementation, the embodiments of the present disclosure may register to a corresponding target project by analyzing the idle resources used by the user in each transaction and the transaction target of reinvestment. From the perspective of the target project, through data interaction between the first transaction server and the second transaction server, the entire transaction process of reinvesting the customer's idle resources of a certain currency into the financial product represented by any transaction target may be executed, so as to realize the comprehensive transaction for any user in the diversified transaction scenario, including multiple transaction targets and multiple idle resources.

[0071] The transaction processes executed by the first transaction server and the second transaction server may be elaborated respectively as follows.

[0072] FIG. 2 is a schematic flowchart of a transaction implementation method according to some embodiments of the present disclosure. The method may be applied to the first transaction server and may be executed by a transaction implementation apparatus configured on the first

transaction server provided by the present disclosure. The transaction implementation apparatus configured on the first transaction server may be implemented by any software and/or hardware means. The first transaction server may include, but is not limited to, various electronic devices such as an ultra-mobile personal computer (UMPC), a netbook, a large server, and a computing cluster. The embodiments of the present disclosure may not impose any restrictions on the type of the first transaction server.

[0073] As shown in FIG. 2, the method may include operations executed by the following blocks.

[0074] At block S210, idle resource information of a registered user may be obtained.

[0075] The registered user may include various customers who have registered through an investment and transaction application (App) and support transactions for various transaction targets. The idle resource information may include a resource type and a resource quantity of an idle resource. For example, the idle resource may refer to an account balance in a corresponding account of the registered user. The resource type of the idle resource may refer to a currency of the account balance, including but not limited to RMB, GBP, USD, etc. The resource quantity may refer to a value corresponding to the account balance.

[0076] It can be understood that a transaction activity initiated by any registered user may be an entire transaction process of reinvesting the idle resource of the registered user into a financial product represented by a certain transaction target. The idle resource of the registered user may include multiple types, such as multiple currencies, and support investment in financial products represented by multiple transaction targets.

[0077] Thus, to ensure the successful implementation of a transaction for any registered user, for each registered user, the embodiments of the present disclosure may analyze a remaining status of various types of idle resources of the registered users in real time to obtain the idle resource information of the registered user, so as to subsequently determine whether the idle resource of the registered user supports initiating a corresponding transaction for a certain target project.

[0078] At block S220, in response to a project registration operation of the registered user, determine a resource transaction record of the registered user corresponding to a target project based on the idle resource information of the registered user.

[0079] Each registered user may have multiple types of idle resources, and there are multiple transaction targets that may be traded with the idle resources. This indicates that each registered user has corresponding transaction requirements in diversified transaction scenarios, including multiple transaction targets and multiple idle resources. In order to realize a comprehensive

transaction for any registered user in diversified transaction scenarios, including multiple transaction targets and multiple idle resources, the embodiments of the present disclosure may introduce the concept of the target project. Each target project may represent a project where the registered user initiates a corresponding transaction for a certain transaction target using a certain type of idle resource.

[0080] In some embodiments, based on various idle resources that may be used by each registered user in each transaction and various transaction targets that may support transactions, multiple target projects may be pre-deployed, and each target project may operate independently. Thus, the embodiments of the present disclosure may accurately analyze the transaction process initiated by any registered user using any type of idle resource for any type of transaction target from the perspective of the target project.

[0081] In some embodiments, a project registration interface may be displayed to the registered user through a visual interface of the client. A project registration operation corresponding to the registered user may be received via the project registration interface of the client. After receiving the project registration operation of the registered user via the client, the first transaction server may determine the target project joined by the registered user based on the resource type of the idle resource in the idle resource information of the registered user, and may determine an actual usage amount of the idle resource on the target project based on a resource quantity of the idle resource of the corresponding resource type, thereby generating the resource transaction record corresponding to the target project.

[0082] For example, the idle resource information of the registered user may include an idle resource A with a resource quantity of value A and a resource type of type A, and an idle resource B with a resource quantity of value B and a resource type of type B. After receiving the project registration operation corresponding to the registered user, target projects joined by the registered user may be determined as a target project A corresponding to the resource type A and a target project B corresponding to the resource type B based on the resource types of the idle resources in the idle resource information of the registered user. Meanwhile, an actual idle resource usage amount (i.e., value A) corresponding to the target project A may be determined based on the resource quantity corresponding to the idle resource A, and an actual idle resource usage amount (i.e., value B) corresponding to the target project B may be determined based on the resource quantity corresponding to the idle resource B.

[0083] In some embodiments, for any registered user, after obtaining the idle resource information of the registered user, whether any type of idle resource of the registered user supports initiating a corresponding transaction for a certain transaction target may be analyzed

based on the idle resource information. When it is determined that the registered user can use a certain type of idle resource to initiate the corresponding transaction for the certain transaction target, the embodiments of the present disclosure may add the registered user to a corresponding target project based on the type of idle resource used by the registered user and the transaction target of the transaction, thereby generating the project registration operation of the registered user.

[0084] In response to the project registration operation of the registered user, the target project corresponding to the registered user this time may first be determined. By analyzing the idle resource information of the registered user and the actual usage amount of the idle resource and an actual transaction target involved in a case where the registered user joins the target project, the resource transaction record of the registered user corresponding to the target project may be determined.

[0085] In some embodiments, since each independently operating target project is deployed for different transaction targets and different types of idle resources, the resource transaction record of the registered user corresponding to the target project may be determined by the embodiments of the present disclosure in the following way: obtaining a resource type corresponding to the target project; obtaining a resource quantity of a target idle resource of the registered user under the resource type corresponding to the target project based on the idle resource information of the registered user; constructing the resource transaction record of the registered user corresponding to the target project based on the resource quantity of the target idle resource and target operation information.

[0086] For the target project registered by the registered user, the embodiments of the present disclosure may determine the resource type corresponding to the target project, thereby determining which type of idle resource the registered user may use for the transaction. By analyzing the idle resource information of the registered user, the target idle resource of the registered user under the resource type corresponding to the target project may be determined from various types of idle resources. The resource quantity of the target idle resource, such as balance information of the target idle resource, etc., may be obtained to represent an actual usage amount of the target idle resource by the registered user in the transaction.

[0087] Furthermore, by analyzing the transaction target corresponding to the target project, the actual transaction target of the registered user in the transaction may be determined. By analyzing an actual transaction behavior of the registered user initiating a corresponding transaction for the transaction target corresponding to the target project using the target idle resource, the target operation information corresponding to the registered user may be

determined. The target operation information may at least include information that the registered user performs a subscription operation or a redemption operation on the transaction target corresponding to the target project using the target idle resource.

[0088] By comprehensively analyzing the resource quantity of the target idle resource and the above-mentioned target operation information, the actual usage amount and the actual transaction target of the target idle resource may be determined in a case where the registered user performs the transaction under the target project, thereby constructing the resource transaction record of the registered user corresponding to the target project.

[0089] At block S230, the resource transaction record and an interest rate file of the target project may be reported to a second transaction server, enabling the second transaction server to generate a project transaction record based on resource transaction records of different registered users corresponding to the target project, trigger a project transaction of the target project, and update a gain resource amount of the registered user based on the interest rate file of the target project in response to project transaction execution success information.

[0090] The interest rate file may refer to resource income information in the target project. For example, the interest rate file may be a resource income rate in the target project. The second transaction server, functioning as an upstream server of the first transaction server, may be configured to analyze an income situation of the idle resource after the customer joins the target project via the first transaction server.

[0091] It can be understood that idle resource income standards supported by the transaction targets corresponding to different target projects may be different. Therefore, after determining the resource transaction record of the registered user corresponding to the target project, in the embodiments of the present disclosure, the interest rate file corresponding to the target project may be determined based on the transaction target corresponding to the target project. The interest rate file may describe a resource income rate that may be obtained in a case where the target project is traded.

[0092] The resource transaction record of the registered user corresponding to the target project and the interest rate file corresponding to the target project may be jointly reported to the second transaction server.

[0093] Considering that there may be multiple registered users registering to the same target project to initiate corresponding transactions at the same time, the second transaction server may receive multiple resource transaction records and multiple interest rate files corresponding to the same target project from multiple registered users at the same time.

[0094] In order to ensure comprehensive transactions of registered users in diversified

transaction scenarios, including multiple transaction targets and multiple idle resources, for corresponding transactions initiated by different registered users in the same target project, the second transaction server may aggregate each resource transaction record of different registered users corresponding to the same target project to obtain a total resource transaction record, functioning as the project transaction record of the target project. A corresponding project transaction operation may be triggered and executed from the perspective of the target project based on transaction operation information in the project transaction record.

[0095] It can be understood that for the resource income of each registered user under the target project, the resource income under the target project may typically be distributed to each registered user respectively only after confirming that the target project has been successfully executed and completed. Therefore, after triggering the target project to execute the corresponding project transaction operation, the second transaction server may also determine whether the project transaction of the target project is executed successfully in real time. Furthermore, upon detecting the project transaction execution success information of the target project and confirming that the target project has successfully executed and completed the project transaction, the second transaction server may obtain a resource income situation of each registered user after the transaction of the target project succeeds by analyzing the interest rate file of the target project in conjunction with the actual usage amount of the idle resource corresponding to the target project when each registered user performs the transaction under the target project. In this way, the gain resource amount of each registered user is determined.

[0096] In some embodiments, considering that each time the registered user joins a certain target project to initiate a corresponding transaction for a certain transaction target using a certain type of idle resource, whether the target project has successfully executed and completed the transaction may be determined by whether a target issuance server where the transaction target corresponding to the target project is located initiates corresponding resource settlement for the project transaction. Therefore, after the first transaction server reports the resource transaction record of the registered user corresponding to the target project and the interest rate file of the target project to the second transaction server, in order to support the second transaction server to accurately know whether the target project has successfully executed and completed the project transaction, in the embodiments of the present disclosure, the first transaction server may also receive the project transaction record of the target project returned by the second transaction server, send a project transaction instruction of the target project to the target issuance server corresponding to the target project based on the project transaction record, receive transaction success indication information returned by the target

issuance server, and report the project transaction execution success information of the target project to the second transaction server based on the transaction success indication information, enabling the second transaction server to update the gain resource amount of the registered user based on the interest rate file of the target project in response to the project transaction execution success information.

[0097] In some embodiments, after the first transaction server reports the resource transaction record of the registered user corresponding to the target project and the interest rate file of the target project to the second transaction server, the second transaction server may aggregate each resource transaction record of different registered users corresponding to the same target project to obtain the total resource transaction record, functioning as the project transaction record of the target project.

[0098] Whether any target project has successfully executed and completed the transaction may need to be determined by whether the target issuance server where the transaction target corresponding to the target project is located initiates corresponding resource settlement for the project transaction. However, the second transaction server, functioning as the upstream server of the first transaction server, may not directly support triggering the target issuance server corresponding to the target project to perform any operations. Therefore, after aggregating each resource transaction record of different registered users corresponding to the same target project into the project transaction record of the target project, the second transaction server may return the project transaction record to the first transaction server, so as to instruct the first transaction server to trigger the target issuance server corresponding to the target project to perform the corresponding project transaction operation.

[0099] Therefore, in a case where the registered user joins any target project, the first transaction server may receive the project transaction record of the target project returned by the second transaction server, thereby learning that the corresponding transaction needs to be performed on the target project. Furthermore, by analyzing the project transaction record, the first transaction server may determine the idle resource usage amount of each registered user when the registered user performs the transaction after joining the target project, thereby generating the project transaction instruction for the target project. The project transaction instruction may include an idle resource quantity that needs to be settled by the registered user when the target project is traded. The first transaction server may send the project transaction instruction of the target project to the target issuance server corresponding to the target project, so that the target issuance server may perform a corresponding resource settlement operation for the project transaction of the target project to realize the transaction execution of the target

project.

[00100] In order to accurately analyze whether the target project has successfully executed and completed the project transaction, the target issuance server may generate corresponding transaction success indication information after the target project has successfully executed and completed the resource settlement of the project transaction by analyzing a resource settlement result corresponding to the target project, and may return the transaction success indication information to the first transaction server. The transaction success indication information may indicate that the project transaction of the target project has been successfully executed and completed. After receiving the transaction success indication information returned by the target issuance server, the first transaction server may learn that the project transaction of the target project has been successfully executed and completed by analyzing the transaction success indication information, thereby generating the project transaction execution success information of the target project. The first transaction server may report the project transaction execution success information of the target project to the second transaction server, so that the second transaction server may confirm that the target project has successfully executed and completed the project transaction in a case where the second transaction server receives the project transaction execution success information of the target project. The second transaction server may determine the resource income situation of each registered user after the transaction of the target project succeeds by analyzing the interest rate file of the target project in conjunction with the actual usage amount of the idle resource corresponding to the target project when each registered user performs the transaction under the target project, so as to determine the gain resource amount of each registered user.

[00101] At block S240, the gain resource amount of the registered user under the target project returned by the second transaction server is received, and the idle resource information of the registered user is updated.

[00102] After the second transaction server determines the gain resource amount of each registered user who has joined the target project, in order to ensure that each registered user obtains corresponding resource income after the transaction of the target project succeeds, the second transaction server may return the gain resource amount of each registered user who has joined the target project to the first transaction server. The first transaction server may receive the gain resource amount of each registered user under the target project returned by the second transaction server, and add the gain resource amount of the registered user under the target project to an original idle resource quantity of each registered user to obtain a latest idle resource quantity of the registered user after the transaction of the target project succeeds,

thereby updating the idle resource information of the registered user. In this way, an accurate dividend distribution to each registered user may be achieved after the transaction of the target project succeeds.

[00103] In some embodiments, in a case where the registered user obtains resource income by joining the corresponding target project, the registered user may typically need to hand over part of the resource income brought by the target project to ensure that the registered user may enjoy certain benefits. Therefore, the embodiments of the present disclosure may update the idle resource information of the registered user in the following way: receiving the gain resource amount of the registered user under the target project returned by the second transaction server; updating the idle resource information of the registered user based on the gain resource amount of the registered user under the target project and resource collection information of the registered user.

[00104] In some embodiments, the first transaction server may receive the gain resource amount of each registered user under the target project returned by the second transaction server to learn the resource income situation of each registered user after the transaction of the target project succeeds. In order to accurately analyze an income contribution situation in a case where the registered user obtains resource income by joining the target project, the embodiments of the present disclosure may set the resource collection information to represent a resource income contribution ratio of the registered user. Different registered users have different resource collection information.

[00105] After receiving the gain resource amount of each registered user under the target project returned by the second transaction server, the first transaction server may determine the resource income contribution ratio of the registered user by analyzing the resource collection information of the registered user. By multiplying the gain resource amount of the registered user under the target project by the resource income contribution ratio of the registered user, an actual resource income quantity that the registered user finally obtains may be determined. The actual resource income quantity of the registered user may be added to the original idle resource quantity of the registered user to update the idle resource information of the registered user.

[00106] In the technical solution provided by the embodiments of the present disclosure, the first transaction server may obtain the idle resource information of the registered user in real time, and determine the resource transaction record of the registered user corresponding to the registered target project based on the idle resource information in a case where the project registration operation of the registered user is detected. The resource transaction record and the

interest rate file of the target project may be reported to the second transaction server, so that the second transaction server may generate the project transaction record based on the resource transaction records of different registered users corresponding to the target project, trigger the project transaction of the target project, and update the gain resource amount of each registered user based on the interest rate file of the target project after the successful execution of the project transaction. In a case where the first transaction server receives the gain resource amount of the registered user under the target project returned by the second transaction server, the first transaction server may update the idle resource information of the registered user accordingly. From the perspective of the target project, the entire transaction process initiated by the registered user using any type of idle resource for any type of transaction target may be completed, realizing the comprehensive transaction for any registered user in the diversified transaction scenario, including multiple transaction targets and multiple idle resources, and ensuring the flexibility and accuracy of transaction implementation.

[00107] FIG. 3 is a schematic flowchart of another transaction implementation method according to some embodiments of the present disclosure. The method may be applied to a second transaction server and executed by a transaction implementation apparatus configured on the second transaction server provided by the embodiments of the present disclosure. The transaction implementation apparatus configured on the second transaction server may be implemented by any software and/or hardware means. The second transaction server may include, but is not limited to, various electronic devices such as a notebook computer, an ultra-mobile personal computer (UMPC), a netbook, and a large server. The embodiments of the present disclosure may not impose any restrictions on the type of the second transaction server.

[00108] As shown in FIG. 3, the method may include operations executed by the following blocks.

[00109] At block S310, a plurality of resource transaction records of different registered users corresponding to a target project and an interest rate file of the target project reported by a first transaction server may be received.

[00110] In the embodiments of the present disclosure, in order to realize a comprehensive transaction for any registered user in diversified transaction scenarios, including multiple transaction targets and multiple idle resources, the embodiments of the present disclosure may introduce the concept of the target project. Based on various idle resources that may be used by each registered user in each transaction and various transaction targets that may support transactions, multiple target projects may be pre-deployed, and each target project may operate independently. Thus, the embodiments of the present disclosure may accurately analyze the

transaction process initiated by any registered user using any type of idle resource for any type of transaction target from the perspective of the target project.

[00111] After the first transaction server detects that any registered user joins a target project, the first transaction server may determine the resource transaction record of the registered user corresponding to the target project by analyzing the idle resource information of the registered user and the actual usage amount of the idle resource and an actual transaction target involved in a case where the registered user joins the target project. The registered user may obtain a certain idle resource income in each transaction, and the second transaction server, functioning as an upstream server of the first transaction server, may typically analyze an income situation of the idle resources of the customer in each transaction by the first transaction server. The first transaction server may jointly report the resource transaction record of the registered user corresponding to the target project and the interest rate file corresponding to the target project to the second transaction server. The second transaction server may analyze the resource income situation of the registered user under the target project.

[00112] Therefore, after the registered user joins the certain target project to initiate a corresponding transaction, there may be multiple registered users registering to the same target project to initiate corresponding transactions at the same time. The second transaction server may receive the resource transaction records of multiple different registered users corresponding to the target project and the interest rate file of the target project reported by the first transaction server, so that the second transaction server may subsequently analyze the resource income situation of each registered user under the target project.

[00113] At block S320, a corresponding project transaction record may be generated based on the resource transaction records of different registered users corresponding to the target project, and a project transaction of the target project may be triggered.

[00114] In order to ensure comprehensive transactions of registered users in diversified transaction scenarios, including multiple transaction targets and multiple idle resources, for corresponding transactions initiated by different registered users in the same target project, the second transaction server may aggregate each resource transaction record of different registered users corresponding to the same target project to obtain a total resource transaction record, so as to generate the project transaction record of the target project. A corresponding project transaction operation may be triggered and executed from the perspective of the target project based on transaction operation information in the project transaction record.

[00115] It can be understood that for the resource income of each registered user under the target project, the resource income under the target project may typically be distributed to each

registered user respectively only after confirming that the target project has been successfully executed and completed. Therefore, after triggering the target project to execute the corresponding project transaction operation, the second transaction server may also determine whether the project transaction of the target project is executed successfully in real time.

[00116] Considering that each time the registered user joins a certain target project to initiate a corresponding transaction for a certain transaction target using a certain type of idle resource, the transaction operation of the target project may typically be a resource settlement operation corresponding to the project transaction performed by a target issuance server where the transaction target corresponding to the target project is located. Therefore, the second transaction server triggering the project transaction of the target project may include: returning the project transaction record of the target project to the first transaction server, enabling the first transaction server to send a project transaction instruction of the target project to a target issuance server corresponding to the target project based on the project transaction record and to receive transaction success indication information returned by the target issuance server; receiving the project transaction execution success information reported by the first transaction server based on the transaction success indication information.

[00117] In some embodiments, after aggregating each resource transaction record of different registered users corresponding to the same target project to generate the project transaction record of the target project, the second transaction server may return the project transaction record to the first transaction server, so as to instruct the first transaction server to trigger the target issuance server corresponding to the target project to perform the corresponding project transaction operation.

[00118] After receiving the project transaction record of the target project returned by the second transaction server, the first transaction server may parse the project transaction record to determine the idle resource usage amount of each registered user when the registered user performs the transaction after joining the target project, thereby generating the project transaction instruction for the target project. The project transaction instruction may include an idle resource quantity that needs to be settled by the registered user when the target project is traded. The first transaction server may send the project transaction instruction of the target project to the target issuance server corresponding to the target project, so that the target issuance server may perform a corresponding resource settlement operation for the project transaction of the target project to realize the transaction execution of the target project.

[00119] In order to accurately analyze whether the target project has successfully executed and completed the project transaction, the target issuance server may generate corresponding

transaction success indication information after the target project has successfully executed and completed the resource settlement of the project transaction by analyzing a resource settlement result corresponding to the target project, and may return the transaction success indication information to the first transaction server. The transaction success indication information may indicate that the project transaction of the target project has been successfully executed and completed. After receiving the transaction success indication information returned by the target issuance server, the first transaction server may learn that the project transaction of the target project has been successfully executed and completed by analyzing the transaction success indication information, thereby generating the project transaction execution success information of the target project and reporting the project transaction execution success information to the second transaction server. Thus, the second transaction server may receive the project transaction execution success information of the target project reported by the first transaction server to confirm that the target project has successfully executed and completed the project transaction.

[00120] At block S330, in response to the project transaction execution success information, a gain resource amount of each registered user may be updated based on the interest rate file of the target project.

[00121] After triggering the target project to execute the corresponding project transaction operation, the second transaction server may also determine whether the project transaction of the target project is executed successfully in real time. Furthermore, upon detecting the project transaction execution success information of the target project and confirming that the target project has successfully executed and completed the project transaction, the second transaction server may determine a resource income situation of each registered user after the transaction of the target project succeeds by analyzing the interest rate file of the target project in conjunction with the actual usage amount of the idle resource corresponding to the target project when each registered user performs the transaction under the target project. In this way, the gain resource amount of each registered user is determined.

[00122] In some embodiments, incomes of the transaction targets corresponding to different target projects on a trading day may be different. For example, a part of the transaction targets may not have new income on the trading day, while another part of the transaction targets may have new income on the trading day. The second transaction server updating the gain resource amount of each registered user based on the interest rate file of the target project may include: determining, in response to the project transaction execution success information, a latest gain resource amount of the target project on a current trading day; updating the gain resource

amount of each of the registered users based on the latest gain resource amount and the interest rate file of the target project.

[00123] In some embodiments, in a case where the second transaction server receives the project transaction execution success information of the target project, the second transaction server may confirm that the target project has successfully executed the project transaction. The second transaction server may need to determine whether the transaction target corresponding to the target project has new resource income on the current trading day, so as to determine a latest gain resource amount of the target project on the current trading day. By settling the latest gain resource amount of the target project on the current trading day, the idle resource balance information of the registered user may be updated. Furthermore, the second transaction server may determine the resource income situation of each registered user after the transaction of the target project succeeds by analyzing the interest rate file of the target project in conjunction with the idle resource balance information of each registered user when performing the transaction under the target project. In this way, the gain resource amount of each registered user is determined.

[00124] At block S340, the gain resource amount of each registered user may be returned to the first transaction server, so that the first transaction server may update the idle resource information of the registered user based on the gain resource amount.

[00125] After the second transaction server determines the gain resource amount of each registered user under the target project, in order to ensure that each registered user obtains corresponding resource income after the transaction of the target project succeeds, the second transaction server may return the gain resource amount of each registered user who has joined the target project to the first transaction server. The first transaction server may be enabled to receive the gain resource amount of each registered user under the target project returned by the second transaction server, and update the idle resource information of the registered user by adding the gain resource amount of the registered user under the target project to an original idle resource quantity of each registered user. In this way, an accurate dividend distribution to each registered user may be achieved after the transaction of the target project succeeds.

[00126] In the technical solution provided by the embodiments of the present disclosure, in a case where the resource transaction records of different registered users corresponding to the target project and the interest rate file of the target project reported by the first transaction server are received, the second transaction server may generate the corresponding project transaction record based on the resource transaction records of different registered users corresponding to the target project and trigger the project transaction of the target project. After

the successful execution of the project transaction, the second transaction server may update the gain resource amount of each registered user based on the interest rate file of the target project. The first transaction server may update the idle resource information of the registered user based on the gain resource amount of the registered user under the target project returned by the second transaction server. From the perspective of the target project, the entire transaction process initiated by the registered user using any type of idle resource for any type of transaction target may be completed, realizing the comprehensive transaction for any registered user in the diversified transaction scenario, including multiple transaction targets and multiple idle resources, and ensuring the flexibility and accuracy of transaction implementation.

[00127] FIG. 4 is a schematic flowchart of a transaction interaction process between a first transaction server and a second transaction server according to some embodiments of the present disclosure. The method may include operations executed by the following blocks.

[00128] At block S401, the first transaction server may obtain the idle resource information of the registered user, and determine the resource transaction record of the registered user corresponding to the target project based on the idle resource information of the registered user in response to the project registration operation of the registered user.

[00129] At block S402, the first transaction server may report the resource transaction record and the interest rate file of the target project to the second transaction server.

[00130] At block S403, the second transaction server may generate the corresponding project transaction record based on the resource transaction records of different registered users corresponding to the target project.

[00131] At block S404, the second transaction server may return the project transaction record of the target project to the first transaction server.

[00132] At block S405, the first transaction server may send the project transaction instruction of the target project to the target issuance server corresponding to the target project based on the project transaction record, and receive the transaction success indication information returned by the target issuance server.

[00133] At block S406, the first transaction server may generate the corresponding project transaction execution success information based on the transaction success indication information.

[00134] At block S407, the first transaction server may report the project transaction execution success information to the second transaction server.

[00135] At block S408, the second transaction server may determine the latest gain resource amount of the target project on the current trading day in response to the project transaction

execution success information.

[00136] At block S409, the second transaction server may update the gain resource amount of each registered user based on the latest gain resource amount and the interest rate file of the target project.

[00137] At block S410, the second transaction server may return the gain resource amount of each registered user to the first transaction server.

[00138] At block S411, the first transaction server may update the idle resource information of the registered user based on the gain resource amount of the registered user under the target project and the resource collection information of the registered user.

[00139] In the technical solution provided by the embodiments of the present disclosure, the first transaction server may obtain the idle resource information of the registered user in real time, and determine the resource transaction record of the registered user corresponding to the registered target project based on the idle resource information in a case where the project registration operation of the registered user is detected. The resource transaction record and the interest rate file of the target project may be reported to the second transaction server, so that the second transaction server may generate the project transaction record based on the resource transaction records of different registered users corresponding to the target project, trigger the project transaction of the target project, and update the gain resource amount of each registered user based on the interest rate file of the target project after the successful execution of the project transaction. In a case where the first transaction server receives the gain resource amount of the registered user under the target project returned by the second transaction server, the first transaction server may update the idle resource information of the registered user accordingly. From the perspective of the target project, the entire transaction process initiated by the registered user using any type of idle resource for any type of transaction target may be completed, realizing the comprehensive transaction for any registered user in the diversified transaction scenario, including multiple transaction targets and multiple idle resources, and ensuring the flexibility and accuracy of transaction implementation.

[00140] FIG. 5 is a schematic block view of a transaction implementation apparatus, configured on the first transaction server, according to some embodiments of the present disclosure. As shown in FIG. 5, the transaction implementation apparatus 500 may include an idle resource obtaining module 510, a resource transaction module 520, a first project transaction module 530, and a first idle resource update module 540.

[00141] The idle resource acquisition module 510 may be configured to obtain idle resource information of a registered user.

[00142] The resource transaction module 520 may be configured to determine a resource transaction record of the registered user corresponding to a target project based on the idle resource information of the registered user in response to a project registration operation of the registered user.

[00143] The first project transaction module 530 may be configured to report the resource transaction record and an interest rate file of the target project to a second transaction server, so that the second transaction server may generate a project transaction record based on resource transaction records of different registered users corresponding to the target project, trigger a project transaction of the target project, and update a gain resource amount of the registered user based on the interest rate file of the target project in response to project transaction execution success information.

[00144] The first idle resource update module 540 may be configured to receive the gain resource amount of the registered user under the target project returned by the second transaction server and update the idle resource information of the registered user.

[00145] In some embodiments, the resource transaction module 520 may further be configured to: obtain a resource type corresponding to the target project; obtain a resource quantity of a target idle resource of the registered user under the resource type corresponding to the target project based on the idle resource information of the registered user; construct the resource transaction record of the registered user corresponding to the target project based on the resource quantity of the target idle resource and target operation information.

[00146] In some embodiments, the transaction implementation apparatus may further include a project transaction determination module. The project transaction determination module may be configured to: receive the project transaction record of the target project returned by the second transaction server; send a project transaction instruction of the target project to a target issuance server corresponding to the target project based on the project transaction record; receive transaction success indication information returned by the target issuance server, and report the project transaction execution success information of the target project to the second transaction server based on the transaction success indication information, enabling the second transaction server to update the gain resource amount of the registered user based on the interest rate file of the target project in response to the project transaction execution success information.

[00147] In some embodiments, the first idle resource update module 540 may further be configured to: receive the gain resource amount of the registered user under the target project returned by the second transaction server; update the idle resource information of the registered user based on the gain resource amount of the registered user under the target project and

resource collection information of the registered user.

[00148] In the embodiments of the present disclosure, the first transaction server may obtain the idle resource information of the registered user in real time, and determine the resource transaction record of the registered user corresponding to the registered target project based on the idle resource information in a case where the project registration operation of the registered user is detected. The resource transaction record and the interest rate file of the target project may be reported to the second transaction server, so that the second transaction server may generate the project transaction record based on the resource transaction records of different registered users corresponding to the target project, trigger the project transaction of the target project, and update the gain resource amount of each registered user based on the interest rate file of the target project after the successful execution of the project transaction. In a case where the first transaction server receives the gain resource amount of the registered user under the target project returned by the second transaction server, the first transaction server may update the idle resource information of the registered user accordingly. From the perspective of the target project, the entire transaction process initiated by the registered user using any type of idle resource for any type of transaction target may be completed, realizing the comprehensive transaction for any registered user in the diversified transaction scenario, including multiple transaction targets and multiple idle resources, and ensuring the flexibility and accuracy of transaction implementation.

[00149] It should be understood that the device embodiment configured on the first transaction server may correspond to the method embodiments applied to the first transaction server, and similar descriptions may refer to the method embodiments. To avoid repetition, details are not repeated here. In some embodiments, the transaction implementation apparatus 500 shown in FIG. 5 may execute any method embodiment applied to the first transaction server provided by the present disclosure. The foregoing and other operations and/or functions of each module in the transaction implementation apparatus 500 may be configured to respectively implement the corresponding processes in each method, applied to the first transaction server, in the embodiments of the present disclosure. For brevity, details are not repeated here.

[00150] The transaction implementation apparatus 500 in the embodiments of the present disclosure may be described above from a perspective of functional modules in conjunction with the accompanying drawings. It should be understood that the functional modules may be implemented in the form of hardware, or in the form of software instructions, or in the form of a combination of hardware and software modules. In some embodiments, each operation of the

method embodiments applied to the transaction server in the embodiments of the present disclosure may be completed by an integrated logic circuit of hardware and/or an instruction in the form of software in a processor. The operations of the method applied to the transaction server according to the embodiments of the present disclosure may be directly implemented as being executed by a hardware decoding processor, or implemented by a combination of hardware and software modules in the decoding processor. Alternatively, the software module may be located in a mature storage medium in the related art such as a random access memory, a flash memory, a read-only memory, a programmable read-only memory, an electrically erasable programmable memory, or a register. The storage medium may be located in the memory, and the processor may read information from the memory and complete the operations in the above method embodiments in combination with its hardware.

[00151] FIG. 6 is a schematic block view of another transaction implementation apparatus, configured on a second transaction server, according to some embodiments of the present disclosure. As shown in FIG. 6, the transaction implementation apparatus 600 may include a resource transaction record receiving module 610, a second project transaction module 620, a gain resource update module 630, and a second idle resource update module 640.

[00152] The resource transaction record receiving module 610 may be configured to receive a plurality of resource transaction records of different registered users corresponding to a target project and an interest rate file of the target project reported by a first transaction server.

[00153] The second project transaction module 620 may be configured to generate a corresponding project transaction record based on the resource transaction records of different registered users corresponding to the target project and trigger a project transaction of the target project.

[00154] The gain resource update module 630 may be configured to update a gain resource amount of each registered user based on the interest rate file of the target project in response to the project transaction execution success information.

[00155] The second idle resource update module 640 may be configured to return the gain resource amount of each registered user to the first transaction server, so that the first transaction server may update the idle resource information of the registered user based on the gain resource amount.

[00156] In some embodiments, the second project transaction module 620 may further be configured to: return the project transaction record of the target project to the first transaction server, enabling the first transaction server to send a project transaction instruction of the target project to a target issuance server corresponding to the target project based on the project

transaction record and to receive transaction success indication information returned by the target issuance server; receive the project transaction execution success information reported by the first transaction server based on the transaction success indication information.

[00157] In some embodiments, the gain resource update module 630 may further be configured to: determine, in response to the project transaction execution success information, a latest gain resource amount of the target project on a current trading day; update the gain resource amount of each of the registered users based on the latest gain resource amount and the interest rate file of the target project.

[00158] In the embodiments of the present disclosure, in a case where the resource transaction records of different registered users corresponding to the target project and the interest rate file of the target project reported by the first transaction server are received, the second transaction server may generate the corresponding project transaction record based on the resource transaction records of different registered users corresponding to the target project and trigger the project transaction of the target project. After the successful execution of the project transaction, the second transaction server may update the gain resource amount of each registered user based on the interest rate file of the target project. The first transaction server may update the idle resource information of the registered user based on the gain resource amount of the registered user under the target project returned by the second transaction server. From the perspective of the target project, the entire transaction process initiated by the registered user using any type of idle resource for any type of transaction target may be completed, realizing the comprehensive transaction for any registered user in the diversified transaction scenario, including multiple transaction targets and multiple idle resources, and ensuring the flexibility and accuracy of transaction implementation.

[00159] It should be understood that the device embodiment configured on the second transaction server may correspond to the method embodiments applied to the second transaction server, and similar descriptions may refer to the method embodiments. To avoid repetition, details are not repeated here. In some embodiments, the transaction implementation apparatus 600 shown in FIG. 6 may execute any method embodiment applied to the second transaction server provided by the present disclosure. The foregoing and other operations and/or functions of each module in the transaction implementation apparatus 600 may be configured to respectively implement the corresponding processes in each method, applied to the second transaction server, in the embodiments of the present disclosure. For brevity, details are not repeated here.

[00160] The transaction implementation apparatus 600 in the embodiments of the present

disclosure may be described above from a perspective of functional modules in conjunction with the accompanying drawings. It should be understood that the functional modules may be implemented in the form of hardware, or in the form of software instructions, or in the form of a combination of hardware and software modules. In some embodiments, each operation of the method embodiments applied to the transaction server in the embodiments of the present disclosure may be completed by an integrated logic circuit of hardware and/or an instruction in the form of software in a processor. The operations of the method applied to the transaction server according to the embodiments of the present disclosure may be directly implemented as being executed by a hardware decoding processor, or implemented by a combination of hardware and software modules in the decoding processor. Alternatively, the software module may be located in a mature storage medium in the related art, such as a random access memory, a flash memory, a read-only memory, a programmable read-only memory, an electrically erasable programmable memory, or a register. The storage medium may be located in the memory, and the processor may read information from the memory and complete the operations in the above method embodiments in combination with its hardware.

[00161] FIG. 7 is a schematic block view of an electronic device according to some embodiments of the present disclosure.

[00162] As shown in FIG. 7, the electronic device 700 may include a memory 710 and a processor 720.

[00163] The memory 710 may be configured to store a computer program and transmit a program code to the processor 720. In other words, the processor 720 may call the computer program from the memory 710 and run the computer program to implement the method in the embodiments of the present disclosure.

[00164] For example, the processor 720 may be configured to execute the above method embodiments according to an instruction in the computer program.

[00165] In some embodiments of the present disclosure, the processor 720 may include, but is not limited to a general-purpose processor, a digital signal processor (DSP), an application specific integrated circuit (ASIC), a field programmable gate array (FPGA) or other programmable logic devices, a discrete gate or a transistor logic device, a discrete hardware component, etc.

[00166] In some embodiments of the present disclosure, the memory 710 may include, but is not limited to a volatile memory and/or non-volatile memory.

[00167] The non-volatile memory may be a read-only memory (ROM), a programmable ROM (PROM), an erasable PROM (EPROM), an electrically EPROM (EEPROM), or a flash

memory. The volatile memory may be a random access memory (RAM), which may function as an external high-speed cache. By way of illustrative but not restrictive description, many forms of RAM may be available, such as a static RAM (SRAM), a dynamic RAM (DRAM), a synchronous DRAM (SDRAM), a double data rate SDRAM (DDR SDRAM), an enhanced SDRAM (ESDRAM), a synch link DRAM (SLDRAM), and a direct rambus RAM (DR RAM).

[00168] In some embodiments of the present disclosure, the computer program may be divided into one or more modules. The one or more modules may be stored in the memory 710 and executed by the processor 720 to complete the method provided by the embodiments of the present disclosure. The one or more modules may be a series of computer program instruction segments capable of completing specific functions, and the instruction segments may be configured to describe an execution process of the computer program in the electronic device.

[00169] As shown in FIG. 7, the electronic device may further include a transceiver 730. The transceiver 730 may be connected to the processor 720 or the memory 710.

[00170] The processor 720 may control the transceiver 730 to communicate with other devices, for example, to send information or data to other devices, or to receive information or data sent by other devices. The transceiver 730 may include a transmitter and a receiver. The transceiver 730 may further include an antenna. The number of the antenna may be one or more.

[00171] It should be understood that each component in the electronic device may be connected through a bus system. The bus system may include a data bus, as well as a power bus, a control bus, and a status signal bus.

[00172] The embodiments of the present disclosure may also provide a computer storage medium configured to store a computer program. In a case where the computer program is executed by a computer, the computer may execute the method of the above method embodiments. In other words, the embodiments of the present disclosure may also provide a computer program product including an instruction. The instruction may be configured to be executed by a computer, enabling the computer to execute the method of the above method embodiments.

[00173] In a case where the method is implemented in software, the method may be fully or partially implemented in the form of a computer program product. The computer program product may include one or more computer instructions. In a case where the computer program instructions are loaded and executed on the computer, the processes or functions according to the embodiments of the present disclosure may be fully or partially generated. The computer may be a general-purpose computer, a dedicated computer, a computer network, or other

programmable devices. The computer instructions may be stored in a computer-readable storage medium or transmitted from one computer-readable storage medium to another computer-readable storage medium. For example, the computer instructions may be transmitted from a website, computer, server, or data center to another website, computer, server, or data center via a wired (e.g., coaxial cable, optical fiber, and digital subscriber line (DSL)) or wireless (e.g., infrared, wireless, microwave, etc.) manner. The computer-readable storage medium may be any available medium that may be accessed by a computer or a data storage device such as a server or a data center integrating one or more available medium. The available medium may be a magnetic medium (e.g., a floppy disk, a hard disk, and a magnetic tape), an optical medium (e.g., a digital video disc (DVD)), or a semiconductor medium (e.g., a solid state disk (SSD)), etc.

[00174] Those of ordinary skill in the art can realize that the modules and algorithm operations of the examples described in conjunction with the embodiments disclosed herein may be implemented by electronic hardware, or a combination of computer software and electronic hardware. Whether the functions are executed in hardware or software depends on the application and design constraints of the technical solution. Professional technicians can use different methods to implement the described functions for each specific application, but such implementation should not be considered beyond the scope of the present disclosure.

[00175] In the several embodiments provided in the present disclosure, it should be understood that the disclosed system, apparatus, and method may be implemented in other ways. For example, the apparatus embodiments described above may be only illustrative. For example, the division of the modules may only be a logical function division. In actual implementation, there may be other division manners. For example, multiple modules or components may be combined or integrated into another system, or some features may be ignored or not implemented. In addition, the shown or discussed mutual coupling, direct coupling, or communication connection may be indirect coupling or communication connection through some interfaces, apparatus, or modules, and may be electrical, mechanical, or other forms.

[00176] The modules described as separate components may or may not be physically separated, and the components shown as modules may or may not be physical modules, that is, they may be located in one place, or may be distributed to multiple network units. A part or all of the modules may be selected based on actual requirements to achieve the purpose of the solution of the embodiments. For example, each functional module in each embodiment of the present disclosure may be integrated into one processing module, each module may exist

physically independently, or two or more modules may be integrated into one module.

[00177] The above is only the specific implementation of the present disclosure, but the protection scope of the present disclosure is not limited thereto. Any person skilled in the art can easily think of changes or substitutions within the technical scope disclosed in the present disclosure, which should be covered in the protection scope of the present disclosure. Therefore, the protection scope of the present disclosure should be based on the protection scope of the claims.

CLAIMS

1. A transaction implementation method, applied to a first transaction server and comprising:

obtaining idle resource information of a registered user;

determining, in response to a project registration operation of the registered user, a resource transaction record of the registered user corresponding to a target project based on the idle resource information of the registered user;

reporting the resource transaction record and an interest rate file of the target project to a second transaction server, enabling the second transaction server to generate a project transaction record based on resource transaction records of different registered users corresponding to the target project, trigger a project transaction of the target project, and update a gain resource amount of the registered user based on the interest rate file of the target project in response to project transaction execution success information;

receiving the gain resource amount of the registered user under the target project returned by the second transaction server, and updating the idle resource information of the registered user.

2. The method according to claim 1, wherein determining, in response to the project registration operation of the registered user, the resource transaction record of the registered user corresponding to the target project based on the idle resource information of the registered user, comprises:

obtaining a resource type corresponding to the target project;

obtaining a resource quantity of a target idle resource of the registered user under the resource type corresponding to the target project based on the idle resource information of the registered user;

constructing the resource transaction record of the registered user corresponding to the target project based on the resource quantity of the target idle resource and target operation information.

3. The method according to claim 1, wherein after reporting the resource transaction record and the interest rate file of the target project to the second transaction server, the method further comprises:

receiving the project transaction record of the target project returned by the second transaction server;

sending a project transaction instruction of the target project to a target issuance server corresponding to the target project based on the project transaction record;

receiving transaction success indication information returned by the target issuance server, and reporting the project transaction execution success information of the target project to the second transaction server based on the transaction success indication information, enabling the second transaction server to update the gain resource amount of the registered user based on the interest rate file of the target project in response to the project transaction execution success information.

4. The method according to claim 1, wherein receiving the gain resource amount of the registered user under the target project returned by the second transaction server, and updating the idle resource information of the registered user, comprises:

receiving the gain resource amount of the registered user under the target project returned by the second transaction server;

updating the idle resource information of the registered user based on the gain resource amount of the registered user under the target project and resource collection information of the registered user.

5. The method according to claim 4, wherein updating the idle resource information of the registered user based on the gain resource amount of the registered user under the target project and the resource collection information of the registered user, comprises:

determining a resource income contribution ratio of the registered user based on the resource collection information of the registered user;

determining an actual resource income quantity of the registered user based on the gain resource amount of the registered user under the target project and the resource income contribution ratio of the registered user;

updating the idle resource information of the registered user based on the actual resource income quantity of the registered user and an original idle resource quantity of the registered user.

6. The method according to claim 1, wherein the idle resource information comprises a resource type and a resource quantity of an idle resource, the idle resource comprises an account balance in a corresponding account of the registered user, the resource type of the idle resource

comprises a currency of the account balance, and the resource quantity comprises a value corresponding to the account balance.

7. A transaction implementation method, applied to a second transaction server and comprising:

receiving a plurality of resource transaction records of different registered users corresponding to a target project and an interest rate file of the target project reported by a first transaction server;

generating a corresponding project transaction record based on the resource transaction records of different registered users corresponding to the target project, and triggering a project transaction of the target project;

updating, in response to project transaction execution success information, a gain resource amount of each of the registered users based on the interest rate file of the target project;

returning the gain resource amount of each of the registered users to the first transaction server, enabling the first transaction server to update idle resource information of each of the registered users based on the gain resource amount.

8. The method according to claim 7, wherein triggering the project transaction of the target project, comprises:

returning the project transaction record of the target project to the first transaction server, enabling the first transaction server to send a project transaction instruction of the target project to a target issuance server corresponding to the target project based on the project transaction record and to receive transaction success indication information returned by the target issuance server;

receiving the project transaction execution success information reported by the first transaction server based on the transaction success indication information.

9. The method according to claim 7, wherein updating, in response to the project transaction execution success information, the gain resource amount of each of the registered users based on the interest rate file of the target project, comprises:

determining, in response to the project transaction execution success information, a latest gain resource amount of the target project on a current trading day;

updating the gain resource amount of each of the registered users based on the latest gain resource amount and the interest rate file of the target project.

10. The method according to claim 9, wherein updating the gain resource amount of each of the registered users based on the latest gain resource amount and the interest rate file of the target project, comprises:

updating idle resource balance information of each of the registered users based on the latest gain resource amount of the target project on the current trading day;

determining the gain resource amount of each of the registered users based on the interest rate file of the target project and the idle resource balance information of each of the registered users under the target project.

11. The method according to claim 7, wherein the idle resource information comprises a resource type and a resource quantity of an idle resource, the idle resource comprises an account balance in a corresponding account of each of the registered users, the resource type of the idle resource comprises a currency of the account balance, and the resource quantity comprises a value corresponding to the account balance.

12. A transaction implementation apparatus, configured on a first transaction server and comprising:

an idle resource obtaining module, configured to obtain idle resource information of a registered user;

a resource transaction module, configured to determine a resource transaction record of the registered user corresponding to a target project based on the idle resource information of the registered user, in response to a project registration operation of the registered user;

a first project transaction module, configured to report the resource transaction record and an interest rate file of the target project to a second transaction server, enabling the second transaction server to generate a project transaction record based on resource transaction records of different registered users corresponding to the target project, trigger a project transaction of the target project, and update a gain resource amount of the registered user based on the interest rate file of the target project in response to project transaction execution success information;

a first idle resource update module, configured to receive the gain resource amount of the registered user under the target project returned by the second transaction server, and to update the idle resource information of the registered user.

13. A transaction implementation apparatus, configured on a second transaction server and comprising:

a resource transaction record receiving module, configured to receive a plurality of resource transaction records of different registered users corresponding to a target project and an interest rate file of the target project reported by a first transaction server;

a second project transaction module, configured to generate a corresponding project transaction record based on the resource transaction records of different registered users corresponding to the target project, and to trigger a project transaction of the target project;

a gain resource update module, configured to update a gain resource amount of each of the registered users based on the interest rate file of the target project in response to project transaction execution success information;

a second idle resource update module, configured to return the gain resource amount of each of the registered users to the first transaction server, enabling the first transaction server to update idle resource information of each of the registered users based on the gain resource amount.

14. An electronic device, comprising:

a processor and a memory, wherein the memory is configured to store a computer program, and the processor is configured to call and run the computer program stored in the memory to execute the transaction implementation method according to any one of claims 1 to 11.

15. A non-transitory computer-readable storage medium, configured to store a computer program, wherein the computer program is configured to enable a computer to execute the transaction implementation method according to any one of claims 1 to 11.