# RESOURCE PROCESSING METHOD AND APPARATUS

**[0001]** The present application claims priority to Chinese Patent Application No. 201610461033.5, filed on June 22, 2016 and entitled "RESOURCE PROCESSING METHOD AND APPARATUS", which is incorporated herein by reference in its entirety.

## TECHNICAL FIELD

**[0002]** The present application relates to the field of computer technologies, and in particular, to a resource processing method and apparatus.

## BACKGROUND

**[0003]** When using a service provided by a service provider (for example, a website), a user usually consumes a certain quantity of the service provider's resource. In order to use the service smoothly, the user usually feeds back a corresponding quantity of resource costs to the service provider.

**[0004]** Currently, in practice, the service provider provides the user with an online prepaid resource (for example, an electronic voucher and an electronic prepaid card, which is referred to as a prepaid resource for short in the following). The prepaid resource can offset the corresponding quantity of resource costs when the user uses the service provided by the service provider.

**[0005]** In the existing technology, the user can obtain the prepaid resource one by one from the service provider, so that the user can use the obtained prepaid resource when using the service provided by the service provider. A back end server (referred to as a server for short in the following) of the service provider creates a resource account for a prepaid resource obtained by the user each time (that is, each resource account corresponds to a prepaid resource obtained by the user each time), and establishes an association between each resource account and the user. When the user needs to use a prepaid resource, the server determines each resource account associated with the user, and deducts a corresponding quantity of prepaid resources

from each resource account until a total quantity of deducted prepaid resources is consistent with a total quantity of resources required for the service.

**[0006]** For example, a user purchases a plurality of electronic prepaid cards provided by the service provider. Correspondingly, the back end server creates a prepayment account for each electronic prepaid card, and associates the prepayment account with the user. When the user performs payment, the user only needs to provide the service provider with user information (for example, a user name). Then, the server determines a plurality of prepayment accounts of the user based on the user information, and deducts a corresponding quota from each prepayment account, to complete the payment.

**[0007]** However, in the previously described method, the server needs to deduct the corresponding quantity of prepaid resources from the resource accounts one by one. This process is time-consuming especially when many users use their own prepaid resources, and increase processing loads of the server. As a result, the process of deducting prepaid resources costs more time, affecting user to efficiently and smoothly obtaining the service.

## SUMMARY

**[0008]** An implementation of the present application provides a resource processing method, to resolve a problem of low efficiency of deducting a user's prepaid resource by service provider's server in the existing technology.

**[0009]** An implementation of the present application provides a resource processing apparatus, to resolve a problem of low efficiency of deducting a user's prepaid resource by a service provider's server in the existing technology.

**[0010]** The following technical solutions are used in the implementations of the present application:

**[0011]** An implementation of the present application provides a resource processing method, including the following: receiving a service request sent by a user; determining a resource consumption quantity corresponding to the service request; determining a pre-created general resource account of the user, where the general resource account includes all prepaid resources belonging to the user; and obtaining, from the general resource account, prepaid resources corresponding to the resource consumption quantity, to process the service request.

**[0012]** An implementation of the present application provides another resource processing method, including the following: receiving a payment request sent by a user; determining a payment amount corresponding to the payment request; determining a pre-created general prepaid card account of the user, where the general prepaid card account includes all prepaid card funds belonging to the user; and deducting, from the general prepaid card account, a prepaid card fund the same as the payment amount, to process the payment request.

**[0013]** An implementation of the present application provides a resource processing apparatus, including the following: a receiving module, configured to receive a service request sent by a user; a determining module, configured to determine a resource consumption quantity corresponding to the service request; a general account module, configured to determine a pre-created general resource account of the user, where the general resource account includes all prepaid resources belonging to the user; and a processing module, configured to obtain, from the general resource account, prepaid resources corresponding to the resource consumption quantity, to process the service request.

**[0014]** An implementation of the present application provides another resource processing apparatus, including the following: a receiving module, configured to receive a payment request sent by a user; a determining module, configured to determine a payment amount corresponding to the payment request; a general account module, configured to determine a pre-created general prepaid card account of the user, where the general prepaid card account includes all prepaid card funds belonging to the user; and a processing module, configured to deduct, from the general prepaid card account, a prepaid card fund the same as the payment amount, to process the payment request.

**[0015]** At least one technical solution used in the implementations of the present application can achieve the following beneficial effects:

**[0016]** A server of a service provider counts prepaid resources in each resource sub-account created for a user, creates a general resource account for the user, and stores, in the general resource account, the counted total quantity of prepaid resources. As such, when obtaining the prepaid resources of the user, the server can directly obtain the corresponding quantity of prepaid resources from the general resource account instead of obtaining prepaid resources from each resource sub-account. This method can effectively reduce the time for the server to obtain the prepaid resources

and further improve service processing efficiency.

## BRIEF DESCRIPTION OF DRAWINGS

**[0017]** The accompanying drawings here are used to provide further understanding of the present application, and constitute a part of the present application. Example implementations of the present application and descriptions of the implementations are used to explain the present application, and do not constitute an improper limitation to the present application. In the accompanying drawings:

**[0018]** FIG. 1a is a schematic diagram illustrating a resource processing architecture, according to an implementation of the present application;

**[0019]** FIG. 1b is a schematic diagram illustrating a resource processing process, according to an implementation of the present application;

**[0020]** FIG. 2a is schematic diagram 1 illustrating resource account creation, according to an implementation of the present application;

**[0021]** FIG. 2b is schematic diagram 2 illustrating resource account creation, according to an implementation of the present application;

**[0022]** FIG. 2c is schematic diagram 3 illustrating resource account creation, according to an implementation of the present application;

**[0023]** FIG. 3 is a schematic diagram illustrating a resource account obtained after a prepaid resource is used, according to an implementation of the present application;

**[0024]** FIG. 4a is schematic diagram 1 illustrating a prepaid resource when there is a conversion coefficient, according to an implementation of the present application;

**[0025]** FIG. 4b is schematic diagram 2 illustrating a prepaid resource when there is a conversion coefficient, according to an implementation of the present application;

**[0026]** FIG. 5a is a schematic diagram illustrating a resource processing architecture in a merchant scenario, according to an implementation of the present application;

**[0027]** FIG. 5b is a schematic diagram illustrating a resource processing procedure based on the architecture shown in FIG. 5a;

**[0028]** FIG. 6 is a schematic structural diagram illustrating a service processing apparatus, according to an implementation of the present application; and

**[0029]** FIG. 7 is a schematic structural diagram illustrating a resource processing apparatus in a merchant scenario, according to an implementation of the present

application.

## DESCRIPTION OF IMPLEMENTATIONS

**[0030]** To make the objectives, technical solutions, and advantages of the present application clearer, the following clearly and comprehensively describes the technical solutions of the present application with reference to the specific implementations and the corresponding accompanying drawings of the present application. Apparently, the described implementations are some rather than all of the implementations of the present application. All other implementations obtained by a person of ordinary skill in the art based on the implementations of the present application without creative efforts shall fall within the protection scope of the present application.

**[0031]** As described above, when a user uses prepaid resources, a server usually obtains the corresponding prepaid resources from prepayment accounts corresponding to the user one by one. This process is time-consuming, causing low efficiency of service providing from a service provider to the user.

**[0032]** In view of this, a method for quickly and conveniently obtaining prepaid resources in prepayment accounts is required when the user uses the prepaid resources. The implementations of the present application provide a resource processing method, so that a server can quickly obtain prepaid resources of a user, improving efficiency of providing a service for the user.

**[0033]** It is worthwhile to note that the service provider in the implementations of the present application can be a service provider that can provide an online service, for example, a website or a telecommunications operator; or can be a service provider that can provide an offline service (in this scenario, the service provider still provides an online prepaid resource), for example, a store or a restaurant. In this case, a server of the service provider can be, for example, a website server, a telecommunications operator server, or a server configured to process an online prepaid resource. The present application is not limited thereto here.

**[0034]** The technical solutions provided by the implementations of the present application are described in detail below with reference to the accompanying drawings.

**[0035]** As shown in FIG. 1a, FIG. 1a is a schematic diagram illustrating a resource processing architecture, according to an implementation of the present

application. Based on the architecture shown in FIG. 1a, FIG. 1b shows a resource processing method according to an implementation of the present application. The resource processing method specifically includes the following steps:

**[0036]** S101. Receive a service request sent by a user.

**[0037]** In an actual application scenario, when the user needs to use a service provided by a service provider, the user can send a corresponding service request. For example, when using a cloud computing service, the user sends a cloud computing request; or when using an online storage service, the user sends a storage request. Correspondingly, a server of the service provider receives the service request sent by the user.

**[0038]** Certainly, in an optional method of the present implementation of the present application, the user can use an end-user device (which can include a mobile phone, a tablet computer, a computer, etc.) to scan a code, click on a service control on a corresponding page, etc., to send the service request to the service provider. The present application is not limited thereto here.

**[0039]** S102. Determine a resource consumption quantity corresponding to the service request.

**[0040]** As described above, when the service provider processes the service request of the user, a certain quantity of resources are usually consumed. For example, when the service provider provides a cloud computing service for the user, a corresponding processing resource is consumed; and when the service provider provides a network storage service, storage space in a database is consumed. Therefore, the user needs to pay corresponding resource costs to the service provider.

**[0041]** In this case, after receiving the service request of the user, the server first determines a quantity of resources required for processing the service request (that is, a service consumption quantity), to subsequently determine the resource costs to be paid by the user.

**[0042]** S103. Determine a pre-created general resource account of the user.

**[0043]** The general resource account includes all prepaid resources belonging to the user.

**[0044]** In the present implementation of the present application, the general resource account of the user is pre-created based on resource accounts of the user (to be distinguished from the general resource account, a resource account created each time the user equipment obtains prepaid resources is referred to as a resource

sub-account). The prepaid resources stored in the general resource account is a sum of prepaid resources in the resource sub-accounts of the user, in other words, the general resource account includes a total quantity of prepaid resources belonging to the user.

**[0045]** For example, assume that a user has resource accounts A and B, a quantity of prepaid resources in resource sub-account A is 100, and a quantity of prepaid resources included in resource sub-account B is 200. As such, the total quantity of prepaid resources included in a general resource account of the user is 300.

**[0046]** It is worthwhile to note that the general resource account in the present implementation of the present application is created by the server for the user. In a method of the present implementation of the present application, the server stores an identifier of the user (for example, a user ID or a service account registered with the server by the user), so that the server can create the general resource account for the user based on the identifier of the user. For example, if the user registers a service account named "xiaoming" with the server, the server can create a general resource account "xiaoming–general resource account" for the user based on the account name of the service account. After creating the general resource account, the server gathers all prepaid resources of the user and stores all the prepaid resources in the general resource account.

**[0047]** Certainly, the previous example describes merely a feasible method for creating a general resource account, and does not constitute any limitation on the present application.

**[0048]** It is different from the existing technology that in the present implementation of the present application, the general resource account gathers all the prepaid resources belonging to the user, so that there is no need to deduct prepaid resources from each resource sub-account.

**[0049]** S104. Obtain, from the general resource account, prepaid resources corresponding to the resource consumption quantity, to process the service request.

**[0050]** After the quantity of resources to be consumed for the service request and the total quantity of prepaid resources included in the general resource account of the user are determined, the corresponding quantity of resources can be deducted from the general resource account of the user.

**[0051]** It is worthwhile to note that different cases can occur in an actual application scenario.

**[0052]** In a case, the quantity of resources to be consumed for the service request

is not greater than the total quantity of prepaid resources included in the general resource account, so that the server can deduct, from the general resource account, the quantity of resources to be consumed for the service request. For example, assume that the quantity of resources to be consumed for the service request is 80, and the total quantity of prepaid resources in the general resource account of the user is 100. The quantity 80 of prepaid resources can be deducted from the general resource account, and the remaining quantity of prepaid resources in the general resource account is 20.

**[0053]** In another case, the quantity of resources to be consumed for the service request is greater than the total quantity of prepaid resources included in the general resource account. As such, the server can feed back a failure notification to the end-user device to notify the user that the prepaid resources belonging to the user are insufficient to satisfy the resource consumption quantity of the service request; or the server can deduct all the prepaid resources in the general resource account, and feed back a difference compensation notification to the end-user device for the insufficient prepaid resource part, and the user can pay the remaining quantity of resources by using another method. For example, assume that the quantity of resources to be consumed for the service request is 200, and the total quantity of prepaid resources in the general resource account of the user is 100. The total quantity of prepaid resources in the general resource account of the user can be deducted first. In this case, the quantity of resources to be consumed for the service request still has 100 unpaid. Therefore, the user can directly pay the resources, etc., to compensate for the remaining resource consumption quantity. The present application is not limited thereto here.

**[0054]** By using the previous steps, the server of the service provider pre-creates the general resource account of the user. The general resource account gathers all the prepaid resources belonging to the user. After the server receives the service request of the user, the server determines the quantity of resources to be consumed for the service request, so that the server can directly obtain the corresponding quantity of prepaid resources from the general resource account to compensate for the resources to be consumed for the service request. In the existing technology, the prepaid resources are deducted from each resource sub-account of the user. In comparison with the existing technology, the method in the present implementation of the present application enables the corresponding quantity of prepaid resources to be directly

obtained from the general resource account of the user, effectively improving efficiency of obtaining the prepaid resources. This prevents the server from calculating a quantity of prepaid resources in each resource sub-account, thereby reducing work load on the server.

**[0055]** It is worthwhile to note that the steps of the method provided in the previous implementation can be performed by the same device, and specifically, can be the server of the service provider.

**[0056]** The following describes a process of creating a general resource account in detail.

**[0057]** As shown in FIG. 2a, FIG. 2a is a schematic diagram illustrating a process that a server creates a general resource account, according to an implementation of the present application. With reference to FIG. 2a, pre-creating a general resource account of a user includes the following: determining each pre-created resource sub-account of the user; counting a total resource quantity of prepaid resources of the resource sub-accounts; and creating the general resource account for the user based on the counted total resource quantity, and storing, in the general resource account, the prepaid resources corresponding to the total resource quantity.

**[0058]** Each resource sub-account stores prepaid resources obtained by the user each time.

**[0059]** After the user obtains prepaid resources from a service provider (for example, an electronic prepaid card and an electronic voucher purchased by the user), the server creates a corresponding account for the user to store the obtained prepaid resources. In practice, when obtaining the prepaid resources from the service provider, the user uses an identifier of the user (for example, the previous user ID or service account). Therefore, the server can obtain the identifier of the user each time the user obtains the prepaid resources, and create a resource sub-account belonging to the user. The process of creating a resource sub-account is an existing technology, and is not described in detail in the present implementation of the present application.

**[0060]** Each resource sub-account belonging to the user stores prepaid resources obtained by the user each time. Therefore, the resource sub-accounts are counted to determine the total quantity of prepaid resources belonging to the user. On this basis, the general resource account is created for the user, and all the prepaid resources belonging to the user are gathered and stored in the general resource account.

**[0061]** In a method of the present implementation of the present application, the

general resource account of the user can be created when the server creates the first resource sub-account for the user. As shown in FIG. 2b, the server monitors the first resource sub-account (resource sub-account 1 in FIG. 2b) created for the user. When detecting that the resource sub-account is created, the server counts a quantity of prepaid resources in the resource sub-account, uses the counted quantity of prepaid resources as a current total resource quantity, creates the general resource account for the user, and stores, in the general resource account, the prepaid resources corresponding to the quantity of prepaid resources. It can be seen from FIG. 2b that the total quantity of resources in the general resource account is the quantity of resources included in resource sub-account 1. In other words, the total quantity of resources is 100.

**[0062]** In other words, the server creates the general resource account for the user when the server creates the resource sub-account for the user for the first time. Afterwards, if the user obtains a corresponding quantity of new prepaid resources, the server creates a new resource sub-account for the user. Meanwhile, the quantity of prepaid resources in the general resource account also changes. To be specific, the server adds the prepaid resources in the new resource sub-account to the general resource account in real time, so that the total resource quantity in the general resource account increases by the corresponding quantity of prepaid resources.

**[0063]** For example, as shown in FIG. 2c, the user obtains new prepaid resources (assume that a quantity of prepaid resources is 50), and then the server creates a new resource sub-account——resource sub-account 2 (a quantity of prepaid resources stored in resource sub-account 2 is 50) for the user. In this case, the server adds the quantity of prepaid resources in resource sub-account 2 to the general resource account. Therefore, in FIG. 2c, the total resource quantity in the general resource account changes to 150.

**[0064]** The creation of a general resource account can combine all prepaid resources obtained by the user. It can be understood that, when obtaining the prepaid resources of the user, the server can use the general resource account to directly obtain the prepaid resources instead of obtaining the prepaid resources from each resource sub-account. In comparison with the method in the existing technology, the method using a general resource account in the present implementation of the present application can effectively reduce a time for the server to obtain the prepaid resources of the user.

**[0065]** In practice, the prepaid resources provided by the service provider can have different conversion coefficients. To be specific, the same quantity of prepaid resources with different conversion coefficients can offset different quantities of resource costs. For example, when a conversion coefficient is 1, the user can use 100 prepaid resources to offset the same quantity (i.e. 100) of resource costs. In other words, if the conversion coefficient is 1 and a resource consumption quantity for a service request sent by the user is 100, the server obtains 100 prepaid resources belonging to the user.

**[0066]** However, if the conversion coefficient is 2, the user can use 100 prepaid resources to offset 200 resource costs. In other words, if the conversion coefficient is 2 and a resource consumption quantity for a service request sent by the user is 100, the server obtains 50 prepaid resources belonging to the user.

**[0067]** In view of this, when the server counts a total quantity of resources in resource sub-accounts, the server needs to make the count based on a conversion coefficient of each resource sub-account. The counting a total resource quantity of prepaid resources of the resource sub-accounts includes the following: determining a conversion coefficient of prepaid resources in each resource sub-account; and counting the total resource quantity of the prepaid resources of the resource sub-accounts based on the determined conversion coefficient of each resource sub-account.

**[0068]** In the present implementation of the present application, the quantity of prepaid resources in the general resource account is a sum of converted quantities of prepaid resources in the resource sub-accounts.

**[0069]** After the user sends the service request, the server can obtain, based on the resource consumption quantity corresponding to the service request, the same quantity of prepaid resources from the general resource account.

**[0070]** It is worthwhile to note that the quantity of prepaid resources in the resource sub-account corresponds to the total quantity of prepaid resources in the general resource account in real time. In other words, the quantity of prepaid resources in the general resource account correspondingly changes with the quantity of prepaid resources in the resource sub-account. Likewise, when the total quantity of prepaid resources in the general resource account changes, the server correspondingly adjusts the quantity of prepaid resources in the resource sub-account. Therefore, after obtaining a certain quantity of prepaid resources from the general resource account,

the server deducts the same quantity of prepaid resources from the resource sub-accounts.

**[0071]** In the present implementation of the present application, the method shown in FIG. 1a and FIG. 1b further includes the following: deducting a corresponding quantity of prepaid resources from each resource sub-account corresponding to the user, based on the quantity of prepaid resources obtained from the general resource account of the user.

**[0072]** In the present implementation of the present application, the prepaid resources can be deducted from each resource sub-account in a plurality of methods. For example, in practice, the user can obtain prepaid resources for a plurality of times, and the server creates a resource sub-account each time the user obtains prepaid resources. Therefore, a chronological order exists among resource sub-accounts of the user, so that the prepaid resources can be deducted based on the time sequence of the creating time of the resource sub-accounts.

**[0073]** For example, in a case shown in FIG. 2c, resource sub-account 1 is created earlier than resource sub-account 2. If the server obtains 120 prepaid resources from the general resource account of the user, the same quantity of prepaid resources needs to be deducted from resource sub-account 1 and resource sub-account 2. Because the resource sub-account 1 is created earlier, the server first deducts the prepaid resources from resource sub-account 1 based on the time sequence of the creating time of the resource sub-accounts. As shown in FIG. 3, currently, there is no prepaid resource in resource sub-account 1, but 20 prepaid resources need to be further deducted. Therefore, the server deducts 20 prepaid resources from resource sub-account 2. In FIG. 3, there are 30 prepaid resources left in resource sub-account 2.

**[0074]** For another example, different resource sub-accounts can have different conversion coefficients, and the prepaid resources in each resource sub-account can be deducted based on a sequence of conversion coefficients.

**[0075]** As shown in FIG. 4a, assume that the quantity of prepaid resources in resource sub-account 1 is 100, and the conversion coefficient is 2; the quantity of prepaid resources in resource sub-account 2 is 30, and the conversion coefficient is 1. In this case, the total quantity of resources in the general resource account is 100*2+30=230. As shown in FIG. 4b, if a service to be used by the user needs to consume 100 resources, the server directly obtains 100 resources from the general resource account (currently, there are 130 resources left in the general resource

account), and then the server deducts 50 prepaid resources from resource sub-account 1 based on a priority of conversion coefficients.

**[0076]** Therefore, in the previous content, the deducting a corresponding quantity of prepaid resources from each resource sub-account corresponding to the user includes the following: deducting the corresponding quantity of prepaid resources from each resource sub-account based on a time sequence of establishing associations between the resource sub-accounts and the user; or determining a priority sequence of the resource sub-accounts based on the conversion coefficient of the prepaid resources in each resource sub-account, and deducting the corresponding quantity of prepaid resources from each resource sub-account based on the determined priority sequence of the resource sub-accounts.

**[0077]** Certainly, in practice, prepaid resources in the resource sub-accounts can be alternatively deducted based on a sequence of the resource sub-accounts that is set by the user. Alternatively, when some resource sub-accounts have a validity time limit, the prepaid resources can be deducted based on the validity time limit. The present application is not limited thereto here.

**[0078]** It is worthwhile to note that, in the present implementation of the present application, the prepaid resources are deducted from the resource sub-accounts after the service provider provides a service. In other words, the service provider provides the corresponding service for the user after the server obtains the prepaid resources from the general resource account, ensuring that the user can obtain the service in time. On this basis, the server subsequently deducts the prepaid resources from the resource sub-accounts. The user can still obtain the service in time by using this method.

**[0079]** The previous method in the present application can be applied to a prepaid card scenario in an actual application scenario. An architecture in the actual application scenario is shown in FIG. 5a. The actual scenario includes a user, a merchant, and a payment service provider. The user obtains a corresponding service from the merchant (for example, the merchant can provide services such as merchandise, food/drink, or accommodation for the user). The merchant can provide an electronic prepaid card (or an electronic voucher, etc., for ease of description, referred to as a prepaid card in the following) for the user. The payment service provider technically supports online payment for the prepaid card provided by the merchant. In addition, the user registers a user account with the payment service

provider. In practice, the user can purchase a corresponding merchandise from the merchant by using the prepaid card. The prepaid card here can be considered as a prepaid resource. Different prepaid cards have different amounts and conversion coefficients. The user can purchase a plurality of prepaid cards. In this scenario, as shown in FIG. 5b, an implementation of the present application provides a resource processing method.

**[0080]** The method in FIG. 5b includes the following steps:

**[0081]** S501. Receive a payment request sent by a user.

**[0082]** The user needs to pay corresponding amounts after obtaining services provided by the merchant, for example, merchandise, food/drink, or accommodation. In a method of the present implementation of the present application, the payment request can be sent by the user by using an end-user device of the user. The merchant can provide a corresponding quick response code for the user, and the user sends the payment request after the user uses the end-user device to scan the code. In another method of the present implementation of the present application, the payment request can be sent by the merchant. The merchant can send the service request to the server by using a settlement device (for example, a POS machine or an end-user device) of the merchant.

**[0083]** Certainly, both the service request sent by the user and the service request sent by the merchant carry an identifier of the user (for example, an account registered with the payment service provider by the user, a phone number, or a user ID) and an identifier of the merchant (for example, a merchant name or a merchant ID).

**[0084]** S502. Determine a payment amount corresponding to the payment request.

**[0085]** The payment request carries corresponding information about the payment amount, so that the server can determine, based on the information about the payment amount, the amount to be paid for the payment request.

**[0086]** S503. Determine a pre-created general prepaid card account of the user.

**[0087]** The general prepaid card account includes all prepaid card funds belonging to the user.

**[0088]** It is worthwhile to note here that in this actual application scenario, the merchant provides the prepaid card. In view of this, the server creates the prepaid card account (including a prepaid card sub-account and the general prepaid card account) for the user based on the identifier of the merchant and the identifier of the user.

**[0089]** In other words, the server determines, based on the identifier of the user

and the identifier of the merchant that are carried in the service request, the prepaid card account corresponding to the merchant, and determines, based on the identifier of the user, the prepaid card account belonging to the user.

**[0090]** S504. Deduct, from the general prepaid card account, a prepaid card fund the same as the payment amount, to process the payment request.

**[0091]** After deducting the corresponding prepaid card fund from the general prepaid card account of the user, the server notifies the merchant of the successful deduction, so that the merchant completes a payment transaction of the user. In addition, the server notifies the user that the fund is successfully deducted from the prepaid card account of the user, and presents corresponding deduction details. Certainly, the present application is not limited thereto here.

**[0092]** Certainly, the resource processing method in this scenario further includes a process of creating the general prepaid card account, a process of counting a total amount of prepaid card funds based on prepaid card funds in the prepaid card sub-accounts, and a process of deducting prepaid card resources.

**[0093]** In this scenario, pre-creating the general prepaid card account of the user includes the following: determining each pre-created prepaid card sub-account of the user (each prepaid card sub-account stores a prepaid card fund purchased by the user each time); counting a total amount of prepaid card funds of the prepaid card sub-accounts; and creating the general prepaid card account for the user based on the counted total amount, and storing, in the general prepaid card account, prepaid card funds the same as the total amount.

**[0094]** As mentioned above, after the user purchases the prepaid card of the merchant, the server creates the prepaid card sub-account for the user based on the identifier of the user and the identifier of the merchant. The prepaid card sub-account can indicate that the prepaid resource is provided by the merchant, and the prepaid card sub-account belongs to the user.

**[0095]** In this process, the counting a total amount of prepaid card funds of the prepaid card sub-accounts includes the following: determining a conversion coefficient of a prepaid card fund in each prepaid card sub-account; and counting the total amount of the prepaid card funds of the prepaid card sub-accounts based on the determined conversion coefficient of each prepaid card sub-account.

**[0096]** In a process of deducting prepaid card funds, the method further includes the following: deducting a corresponding quantity of prepaid card funds from each

prepaid card sub-account corresponding to the user, based on the prepaid card funds deducted from the general prepaid card account of the user.

**[0097]** Further, the deducting a corresponding quantity of prepaid card funds from each prepaid card sub-account corresponding to the user includes the following: deducting the corresponding quantity of prepaid card funds from each prepaid card sub-account based on a time sequence of establishing associations between the prepaid card sub-accounts and the user; or determining a priority sequence of the prepaid card sub-accounts based on the conversion coefficient of the prepaid resources in each prepaid card sub-account, and deducting the corresponding quantity of prepaid card funds from each prepaid card sub-account based on the determined priority sequence of the prepaid card sub-accounts.

**[0098]** The previous content is similar to content described in the method shown in FIG. 1b. Details are omitted here for simplicity.

**[0099]** The resource processing method provided in an implementation of the present application is described above. Based on the same idea, an implementation of the present application further provides a resource processing apparatus.

**[0100]** As shown in FIG. 6, the apparatus includes the following: a receiving module 601, configured to receive a service request sent by a user; a determining module 602, configured to determine a resource consumption quantity corresponding to the service request; a general account module 603, configured to determine a pre-created general resource account of the user, where the general resource account includes all prepaid resources belonging to the user; and a processing module 604, configured to obtain, from the general resource account, prepaid resources corresponding to the resource consumption quantity, to process the service request.

**[0101]** The general account module 603 determines each pre-created resource sub-account of the user, where each resource sub-account stores prepaid resources obtained by the user each time; counts a total resource quantity of prepaid resources of the resource sub-accounts; and creates the general resource account for the user based on the counted total resource quantity, and stores, in the general resource account, the prepaid resources corresponding to the total resource quantity.

**[0102]** Further, the general account module 603 determines a conversion coefficient of prepaid resources in each resource sub-account; and counts the total resource quantity of the prepaid resources of the resource sub-accounts based on the determined conversion coefficient of each resource sub-account.

**[0103]** The apparatus further includes a resource settlement module 605, configured to deduct, based on the quantity of prepaid resources obtained from the general resource account of the user, a corresponding quantity of prepaid resources from each resource sub-account corresponding to the user.

**[0104]** The resource settlement module 605 deducts the corresponding quantity of prepaid resources from each resource sub-account based on a time sequence of establishing associations between the resource sub-accounts and the user; or determines a priority sequence of the resource sub-accounts based on the conversion coefficient of the prepaid resources in each resource sub-account, and deducts the corresponding quantity of prepaid resources from each resource sub-account based on the determined priority sequence of the resource sub-accounts.

**[0105]** An apparatus based on the apparatus shown in FIG. 6 can be applied in a scenario that a user uses a prepaid card. Specifically, as shown in FIG. 7, an implementation of the present application provides a resource processing apparatus in this scenario. The apparatus includes the following: a receiving module 701, configured to receive a payment request sent by a user; a determining module 702, configured to determine a payment amount corresponding to the payment request; a general account module 703, configured to determine a pre-created general prepaid card account of the user, where the general prepaid card account includes all prepaid card funds belonging to the user; and a processing module 704, configured to deduct, from the general prepaid card account, a prepaid card fund the same as the payment amount, to process the payment request.

**[0106]** The general account module 703 determines each pre-created prepaid card sub-account of the user, where each prepaid card sub-account stores a prepaid card fund purchased by the user each time; counts a total amount of prepaid card funds of the prepaid card sub-accounts; and creates the general prepaid card account for the user based on the counted total amount, and stores, in the general prepaid card account, prepaid card funds the same as the total amount.

**[0107]** Further, the general account module 703 determines a conversion coefficient of a prepaid card fund in each prepaid card sub-account; and counts the total amount of the prepaid card funds of the prepaid card sub-accounts based on the determined conversion coefficient of each prepaid card sub-account.

**[0108]** The apparatus further includes a resource settlement module 705, configured to deduct a corresponding quantity of prepaid card funds from each

prepaid card sub-account corresponding to the user, based on the prepaid card funds deducted from the general prepaid card account of the user.

**[0109]** A person skilled in the art should understand that the implementations of the present disclosure can be provided as a method, a system, or a computer program product. Therefore, the present disclosure can use a form of hardware only implementations, software only implementations, or implementations with a combination of software and hardware. Moreover, the present disclosure can use a form of a computer program product that is implemented on one or more computer-usable storage media (including but not limited to a magnetic disk storage, a CD-ROM, an optical memory, etc.) that include computer-usable program code.

**[0110]** The present disclosure is described with reference to the flowcharts and/or block diagrams of the method, the device (system), and the computer program product according to the implementations of the present disclosure. It is worthwhile to note that computer program instructions can be used to implement each process and/or each block in the flowcharts and/or the block diagrams and a combination of a process and/or a block in the flowcharts and/or the block diagrams. These computer program instructions can be provided for a general-purpose computer, a dedicated computer, an embedded processor, or a processor of another programmable data processing device to generate a machine, so that the instructions executed by the computer or the processor of the another programmable data processing device generate an apparatus for implementing a specific function in one or more processes in the flowcharts and/or in one or more blocks in the block diagrams.

**[0111]** These computer program instructions can be stored in a computer readable memory that can instruct the computer or the another programmable data processing device to work in a specific method, so that the instructions stored in the computer readable memory generate an artifact that includes an instruction apparatus. The instruction apparatus implements a specific function in one or more processes in the flowcharts and/or in one or more blocks in the block diagrams.

**[0112]** These computer program instructions can be loaded onto the computer or the another programmable data processing device, so that a series of operations and steps are performed on the computer or the another programmable device, thereby generating computer-implemented processing. Therefore, the instructions executed on the computer or the another programmable device provide steps for implementing a specific function in one or more processes in the flowcharts and/or in one or more

blocks in the block diagrams.

**[0113]** In a typical configuration, a computing device includes one or more processors (CPU), an input/output interface, a network interface, and a memory.

**[0114]** The memory can include a non-persistent storage, a random access memory (RAM), a nonvolatile memory, and/or another form that are in a computer readable medium, for example, a read-only memory (ROM) or a flash memory (flash RAM). The memory is an example of the computer readable medium.

**[0115]** The computer readable medium includes persistent, non-persistent, movable, and unmovable media that can implement information storage by using any method or technology. Information can be a computer readable instruction, a data structure, a program module, or other data. A computer storage medium includes but is not limited to a phase-change random access memory (PRAM), a static random access memory (SRAM), a dynamic random access memory (DRAM), a random access memory (RAM) of another type, a read-only memory (ROM), an electrically erasable programmable read-only memory (EEPROM), a flash memory or another memory technology, a compact disc read-only memory (CD-ROM), a digital versatile disc (DVD) or another optical storage, a cassette, a cassette magnetic disk storage, another magnetic storage device or any other non-transmission medium. The computer storage medium can be configured to store information that can be accessed by the computing device. Based on the definition in the present specification, the computer readable medium does not include computer-readable transitory media, for example, a modulated data signal and carrier.

**[0116]** It is worthwhile to note that terms "include", "comprise", or their any other variant is intended to cover non-exclusive inclusion, so that a process, a method, an article, or a device that includes a series of elements not only includes these elements, but also includes other elements which are not expressly listed, or further includes elements inherent to such process, method, article, or device. An element preceded by "includes a …" does not, without more constraints, preclude the existence of additional identical elements in the process, method, article, or device that includes the element.

**[0117]** A person skilled in the art should understand that the implementations of the present application can be provided as a method, a system, or a computer program product. Therefore, the present application can use a form of hardware only implementations, software only implementations, or implementations with a

combination of software and hardware. In addition, the present application can use a form of a computer program product that is implemented on one or more computer-usable storage media (including but not limited to a magnetic disk storage, a CD-ROM, an optical memory, etc.) that include computer-usable program code.

**[0118]** The previous descriptions are merely implementations of the present application, and are not intended to limit the present application. For a person skilled in the art, the present application can have various modifications and changes. Any modifications, equivalent substitutions, improvements, etc. made in the spirit and principle of the present application shall fall in the scope of the claims in the present application.

## CLAIMS

What is claimed is:

1. A resource processing method, comprising the following:

receiving a service request sent by a user;

determining a resource consumption quantity corresponding to the service request;

determining a pre-created general resource account of the user, wherein the general resource account comprises all prepaid resources belonging to the user; and

obtaining, from the general resource account, prepaid resources corresponding to the resource consumption quantity, to process the service request.

2. The method according to claim 1, wherein pre-creating the general resource account of the user comprises the following:

determining each pre-created resource sub-account of the user, wherein each resource sub-account stores prepaid resources obtained by the user each time;

counting a total resource quantity of prepaid resources of the resource sub-accounts; and

creating the general resource account for the user based on the counted total resource quantity, and storing, in the general resource account, the prepaid resources corresponding to the total resource quantity.

3. The method according to claim 2, wherein the counting a total resource quantity of prepaid resources of the resource sub-accounts comprises the following:

determining a conversion coefficient of prepaid resources in each resource sub-account; and

counting the total resource quantity of the prepaid resources of the resource sub-accounts based on the determined conversion coefficient of each resource sub-account.

4. The method according to claim 1, wherein the method further comprises the following:

deducting, based on the quantity of prepaid resources obtained from the general resource account of the user, a corresponding quantity of prepaid resources from each resource sub-account corresponding to the user.

5. The method according to claim 4, wherein the deducting a corresponding

quantity of prepaid resources from each resource sub-account corresponding to the user comprises the following:

deducting the corresponding quantity of prepaid resources from each resource sub-account based on a time sequence of establishing associations between the resource sub-accounts and the user; or

determining a priority sequence of the resource sub-accounts based on the conversion coefficient of the prepaid resources in each resource sub-account, and deducting the corresponding quantity of prepaid resources from each resource sub-account based on the determined priority sequence of the resource sub-accounts.

6. A resource processing method, comprising the following:

receiving a payment request sent by a user;

determining a payment amount corresponding to the payment request;

determining a pre-created general prepaid card account of the user, wherein the general prepaid card account comprises all prepaid card funds belonging to the user; and

deducting, from the general prepaid card account, a prepaid card fund the same as the payment amount, to process the payment request.

7. The method according to claim 6, wherein pre-creating the general prepaid card account of the user comprises the following:

determining each pre-created prepaid card sub-account of the user, wherein each prepaid card sub-account stores a prepaid card fund purchased by the user each time;

counting a total amount of prepaid card funds of the prepaid card sub-accounts; and

creating the general prepaid card account for the user based on the counted total amount, and storing, in the general prepaid card account, prepaid card funds the same as the total amount.

8. The method according to claim 7, wherein the counting a total amount of prepaid card funds of the prepaid card sub-accounts comprises the following:

determining a conversion coefficient of a prepaid card fund in each prepaid card sub-account; and

counting the total amount of the prepaid card funds of the prepaid card sub-accounts based on the determined conversion coefficient of each prepaid card sub-account.

9. The method according to claim 6, wherein the method further comprises the following:

deducting a corresponding quantity of prepaid card funds from each prepaid card sub-account corresponding to the user based on the prepaid card funds deducted from the general prepaid card account of the user.

10. The method according to claim 9, wherein the deducting a corresponding quantity of prepaid card funds from each prepaid card sub-account corresponding to the user comprises the following:

deducting the corresponding quantity of prepaid card funds from each prepaid card sub-account based on a time sequence of establishing associations between the prepaid card sub-accounts and the user; or

determining a priority sequence of the prepaid card sub-accounts based on the conversion coefficient of the prepaid resources in each prepaid card sub-account, and deducting the corresponding quantity of prepaid card funds from each prepaid card sub-account based on the determined priority sequence of the prepaid card sub-accounts.

11. A resource processing apparatus, comprising the following:

a receiving module, configured to receive a service request sent by a user;

a determining module, configured to determine a resource consumption quantity corresponding to the service request;

a general account module, configured to determine a pre-created general resource account of the user, wherein the general resource account comprises all prepaid resources belonging to the user; and

a processing module, configured to obtain, from the general resource account, prepaid resources corresponding to the resource consumption quantity, to process the service request.

12. A resource processing apparatus, comprising the following:

a receiving module, configured to receive a payment request sent by a user;

a determining module, configured to determine a payment amount corresponding to the payment request;

a general account module, configured to determine a pre-created general prepaid card account of the user, wherein the general prepaid card account comprises all prepaid card funds belonging to the user; and

a processing module, configured to deduct, from the general prepaid card account, a prepaid card fund the same as the payment amount, to process the payment request.