METHODS, APPARATUSES, AND CLIENT DEVICES FOR PROCESSING SERVICE DATA

TECHNICAL FIELD

[0001] The present application relates to the field of computer and Internet technologies, and in particular, to methods, apparatuses, and client devices for processing service data.

BACKGROUND

[0002] With the development of electronic technologies and Internet technologies, functions of electronic devices (especially intelligent mobile devices) become more powerful, and the electronic devices can complete various transactions provided that users install various application programs on the electronic devices based on demands of the users.

[0003] With the rapid development of intelligent mobile devices, more users choose mobile payments in their daily life. Currently, main modes of mobile payment include a transfer mode, a collection mode, etc. The collection mode includes a mode in which a user collects money from one or more users. Specifically, for example, user A (a receiver) needs to collect money from user B (a payer) and user C (a payer), and user A can initiate a request message of a collection service to corresponding payers: user B and user C. Then, user B and user C enter a payment interface corresponding to the collection service based on the request message, to perform payment and complete the collection service. It can be seen that, in the previously described collection mode, a payer needs to enter a corresponding payment interface based on a request message of a collection service sent by a receiver to complete the collection service.

[0004] However, in the existing technology, a payer may directly perform payment in a transfer mode when a request message of a collection service is not received in a timely manner. In this case, the payer does not enter a payment page of the corresponding collection service to perform payment. As a result, the collection

service is an ongoing service item that is to be processed. Consequently, server resources are wasted, server processing speed is affected, and user experience is reduced.

SUMMARY

[0005] An objective of implementations of the present application is to provide methods, apparatuses, and client devices for processing service data, to help a user complete a service item that is to be processed, and further release server resources, accelerate server processing speed, and improve user experience.

[0006] To alleviate the previously described technical problems, the implementations of the present application are implemented as follows:

[0007] A method for processing service data is provided, including: determining target data of a service item that is to be processed; querying whether received data associated with the target data exists within a predetermined time period; when a determining result is yes, setting a first to-be-confirmed label for the received data associated with the target data; and displaying a first message confirmation interface, where the first message confirmation interface includes a confirmation message about whether to combine the received data that has the first to-be-confirmed label into the corresponding service item that is to be processed.

[0008] A method for processing service data is provided, including: determining a target object of a service item that is to be processed; querying whether received data sent by the target object exists within a predetermined time period; when a determining result is yes, setting a second to-be-confirmed label for the received data sent by the target object; and displaying a second message confirmation interface, where the second message confirmation interface includes a confirmation message about whether to combine the received data that has the second to-be-confirmed label into the corresponding service item that is to be processed.

[0009] An apparatus for processing service data is provided, including: a target data determining module, configured to determine target data of a service item that is to be processed; a first querying module, configured to query whether received data associated with the target data exists within a predetermined time period; a first label setting module, configured to set a first to-be-confirmed label for the received data associated with the target data when a result determined by the first querying module

is yes; and a first confirmation message display module, configured to display a first message confirmation interface, where the first message confirmation interface includes a confirmation message about whether to combine the received data that has the first to-be-confirmed label into the corresponding service item that is to be processed.

[0010] An apparatus for processing service data is provided, including: a target object determining module, configured to determine a target object of a service item that is to be processed; a second querying module, configured to query whether received data sent by the target object exists within a predetermined time period; a second label setting module, configured to set a second to-be-confirmed label for the received data sent by the target object when a result determined by the second querying module is yes; and a second confirmation message display module, configured to display a second message confirmation interface, where the second message confirmation interface includes a confirmation message about whether to combine the received data that has the second to-be-confirmed label into the corresponding service item that is to be processed.

[0011] A client, including: at least one processor; a memory storing programmed instructions, where the programmed instructions, when executed by the at least one processor, instruct the at least one processor to determine target data of a service item that is to be processed, query whether received data associated with the target data exists within a predetermined time period, set a first to-be-confirmed label for the received data associated with the target data when a determining result is yes, and send an instruction for displaying a first message confirmation interface, where the first message confirmation interface includes a confirmation message about whether to combine the received data that has the first to-be-confirmed label into the corresponding service item that is to be processed; and a display unit, coupled to the at least one processor, configured to display the first message confirmation interface, where the first message confirmation interface includes the confirmation message about whether to combine the received data that has the first to-be-confirmed label into the corresponding service item that is to be processed.

[0012] A client, including: at least one processor; a memory storing programmed instructions, wherein the programmed instructions, when executed by the at least one processor, instruct the at least one processor to determine a target object of a service item that is to be processed, query whether received data sent by the target object

exists within a predetermined time period, set a second to-be-confirmed label for the received data sent by the target object when a determining result is yes, and send an instruction for displaying a second message confirmation interface, where the second message confirmation interface includes a confirmation message about whether to combine the received data that has the second to-be-confirmed label into the corresponding service item that is to be processed; and a display unit, coupled to the at least one processor, configured to display the second message confirmation interface, where the second message confirmation interface includes the confirmation message about whether to combine the received data that has the second to-be-confirmed label into the corresponding service item that is to be processed.

[0013] It can be learned from the technical solutions provided in the implementations of the present application that, in the implementations of the present application, whether the received data associated with obtained target data of the service item that is to be processed exists within the predetermined time period is determined, the label that is to be confirmed and that is in a one-to-one correspondence with the corresponding service item that is to be processed is set for the received data associated with the target data, and then the confirmation message about whether to combine the received data that has the label that is to be confirmed into the corresponding service item that is to be processed is displayed to help a user complete the service item that is to be processed. Further, a case in which a user performs service processing in another way instead of entering a service data payment processing interface can be effectively alleviated. Compared with the existing technology, the technical solutions provided in the implementations of the present application can help a user complete a service item that is to be processed, and can further release server resources, accelerate server processing speed, and improve user experience.

BRIEF DESCRIPTION OF DRAWINGS

[0014] To describe the technical solutions in the implementations of the present application or in the existing technology more clearly, the following briefly describes the accompanying drawings needed for describing the implementations or the existing technology. Apparently, the accompanying drawings in the following description merely show some implementations, and a person of ordinary skill in the art can still

derive other drawings from these accompanying drawings without creative efforts.

[0015] FIG. 1 is a schematic flowchart illustrating an implementation of a method for processing service data, according to the present application;

[0016] FIG. 2 is a schematic diagram illustrating an initiation page of an implementation in which a smartphone accesses an application program that has a collection function to perform a collection service, according to the present application;

[0017] FIG. 3 is a schematic diagram illustrating a page of an implementation after a request message of a collection service is sent, according to the present application;

[0018] FIG. 4 is a schematic diagram illustrating a scenario of an implementation after a request message of a collection service is sent, according to the present application;

[0019] FIG. 5 is a schematic diagram illustrating an implementation of a processing page of a collection service, according to the present application;

[0020] FIG. 6 is a schematic diagram illustrating an implementation of displaying a first message confirmation interface in a processing page of a collection service, according to the present application;

[0021] FIG. 7 is a schematic flowchart illustrating another implementation of a method for processing service data, according to the present application;

[0022] FIG. 8 is a schematic diagram illustrating a page of an implementation after a collection service is initiated, according to the present application;

[0023] FIG. 9 is a schematic structural diagram illustrating an implementation of an apparatus for processing service data, according to the present application;

[0024] FIG. 10 is a schematic structural diagram illustrating another implementation of an apparatus for processing service data, according to the present application;

[0025] FIG. 11 is a schematic structural diagram illustrating another implementation of an apparatus for processing service data, according to the present application;

[0026] FIG. 12 is a schematic structural diagram illustrating another implementation of an apparatus for processing service data, according to the present application; and

[0027] FIG. 13 is a schematic structural diagram illustrating an example

implementation of a client, according to the present application.

DESCRIPTION OF IMPLEMENTATIONS

[0028] Implementations of the present application provide methods, apparatuses, and client devices for processing service data.

[0029] Technical carriers related to payment in the implementations of the present application can include, for example, Near Field Communication (NFC), Wireless Fidelity (WiFi), 3G/4G/5G, a technology of swiping card by using a point of sale (POS) machine, a quick response code scanning technology, a bar code scanning technology, Bluetooth, infrared, a short message service (SMS), and a multimedia messaging service (MMS).

[0030] To make a person skilled in the art understand the technical solutions in the present application better, the following clearly and comprehensively describes the technical solutions in the implementations of the present application with reference to the accompanying drawings in the implementations of the present application. Apparently, the described implementations are merely some but not 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] Specific implementation of the implementations of the present application is described in detail below by using several specific examples.

[0032] The following first describes an implementation of a method for processing service data according to the present application. FIG. 1 is a schematic flowchart illustrating an implementation of a method for processing service data, according to the present application. Although the present application provides the operation steps of the method described in the implementation or flowchart, the method can include more or fewer operation steps based on a conventional or non-creative effort. A sequence of the steps listed in the implementation is merely one of numerous execution sequences of the steps, and does not represent a unique execution sequence. In actual execution of an apparatus or a client product, execution can be performed based on the method sequence shown in the implementation or the accompanying drawing, or performed in parallel (e.g., a parallel processor or a

multi-thread processing environment). Specifically, as shown in FIG. 1, the method can include the following steps.

[0033] S110: Determine target data of a service item that is to be processed.

[0034] In the present implementation of the present application, the target data of the service item that is to be processed can include funds, or can include other virtual objects, such as bonus points. Generally, the target data can include one or more pieces of data. In a specific implementation, for example, the service item that is to be processed is an ongoing collection service. Assume that user A, user B, user C, and user D spend a total of 107 RMB on an AA dinner, and the payment is first made by user A. Then, user A can initiate a collection service. Correspondingly, target data of the collection service here is funds, and includes one piece of data: 26.75 RMB. In another specific implementation, assume that user E purchases articles for user X, user Y, and user Z, and the value of user X's articles and the value of user Y's articles are each at 200 RMB, and articles of user Z are valued at 300 RMB. Correspondingly, user E can set two pieces of target data when initiating a collection service: 200 RMB and 300 RMB. Correspondingly, user X, user Y, and user Z can select a corresponding amount to complete payment.

[0035] In the present implementation, for example, an application program that has a collection function is installed in a smartphone. With reference to the previous implementation in which user A, user B, user C, and user D spend a total of 107 RMB on an AA dinner, FIG. 2 is a schematic diagram illustrating an initiation page of an implementation in which a smartphone accesses an application program that has a collection function to perform a collection service, according to the present application. After tapping a trigger button that has an AA collection function in a corresponding application program, user A can enter the initiation page of the collection service shown in FIG. 2, enter 107 in a total amount and 4 in a total quantity of persons, and tap OK to initiate the collection service. Correspondingly, a server can determine corresponding target data by using the total amount and the total quantity of persons that are entered. Then, user A can send a request message of the collection service to the corresponding payers: user B, user C, and user D.

[0036] In addition, it is worthwhile to note that the initiation page in the implementations of the present application is not limited to the form in FIG. 2, and can further include another form with reference to actual application situations, for example, a form of directly entering target data and a total quantity of persons.

Implementations are not limited in the implementations of the present application.

[0037] FIG. 3 is a schematic diagram illustrating a page of an implementation after a request message of a collection service is sent, according to the present application. It can be seen from FIG. 3 that user A sends a request message in a group, and the group can usually include at least one payer. In addition, the request message in the implementations of the present application can be sent in a group that includes a payer to notify the payer of the payment, or can be directly sent to a corresponding payer. Implementations are not limited in the implementations of the present application.

[0038] S120: Query whether received data associated with the target data exists within a predetermined time period.

[0039] In the present implementation of the present application, after the target data of the service item that is to be processed is determined, whether the received data associated with the target data exists within the predetermined time period can be queried. Specifically, the predetermined time period can include a time period predetermined based on a generation time of the service item that is to be processed. The predetermined time period can include the generation time of the service item that is to be processed, or may not include the generation time of the service item that is to be processed. Specifically, the predetermined time period can include at least one of the following setting methods: a first time period before the generation time of the service item that is to be processed; a second time period after the generation time of the service item that is to be processed; a third time period before the generation time of the service item that is to be processed; or a fourth time period after the generation time of the service item that is to be processed.

[0040] Specifically, specific values can be set for the first time period, the second time period, the third time period, and the fourth time period with reference to actual application situations. The third time period can be the same as the fourth time period, or can be different from the fourth time period.

[0041] In a specific implementation, the received data can include received transfer information, etc. For example, user X transfers 200 RMB to you. Specifically, the received data associated with the target data can include at least one of the following: received data whose difference from the target data is less than or equal to a predetermined threshold; or received data that is in a multiple relationship with the target data.

[0042] In some implementations, a collection service is used as an example. Assume that the target data is 25.88 RMB, and a payer may directly transfer 26 RMB for ease of transfer convenience. Correspondingly, the transfer can be included in the received data associated with the target data by setting the predetermined threshold here. Specifically, the predetermined threshold can be predetermined based on a type of the target data and actual application situations. For example, when the target data is funds, the predetermined threshold can be set to 1 RMB. When the target data is bonus points, the predetermined threshold can be set to 10 bonus points. Implementations are not limited in the implementations of the present application.

[0043] In practice, with reference to the previously described implementation of AA dinner, FIG. 4 is a schematic diagram illustrating a scenario of an implementation after a request message of a collection service is sent, according to the present application. It can be seen that user B and user D are in a group in which user A sends a request message of a collection service, and user B and user D enter a corresponding payment interface for payment by using the request message sent by user A, but user C is not in the group in which user A sends the request message of the collection service at first. As a result, user C does not receive, in a timely manner, the request message of the collection service initiated by user A. Assume that user C chooses to directly transfer a corresponding amount of money to user A, and directly transfer 27 RMB to user A for ease of transfer convenience. In this case, by querying whether the received data associated with target data exists within the predetermined time period, it can be found that information that user C transfers 27 RMB to user A is the received data associated with the target data 26.75 RMB.

[0044] In another implementation, a collection service is used as an example. One payer may perform payment for a plurality of payers. Correspondingly, the received data associated with the target data can include the received data that is in a multiple relationship with the target data. In addition, it is worthwhile to note that the received data associated with the target data in the implementations of the present application is not limited to the previously described cases. In practice, another piece of data can be further included, and implementations are not limited in the implementations of the present application.

[0045] S130: When a determining result is yes, set a first to-be-confirmed label for the received data associated with the target data.

[0046] In the present implementation of the present application, when the

determining result in step S120 is yes, the first to-be-confirmed label can be set for the received data associated with the target data. Specifically, the first to-be-confirmed label can include predetermined labels that are in a one-to-one correspondence with corresponding service items that are to be processed.

[0047] In a specific implementation, with reference to the previously described implementation of AA dinner, the first to-be-confirmed label that corresponds to the collection service that can be initiated by user A for the previously described AA dinner can be set for the information that user C transfers 27 RMB to user A.

[0048] S140: Display a first message confirmation interface, where the first message confirmation interface includes a confirmation message about whether to combine the received data that has the first to-be-confirmed label into the corresponding service item that is to be processed.

[0049] In the present implementation of the present application, after the first to-be-confirmed label is set for the received data associated with the target data, the first message confirmation interface can be displayed. The first message confirmation interface includes the confirmation message about whether to combine the received data that has the first to-be-confirmed label into the corresponding service item that is to be processed. Specifically, the first message confirmation interface can include an interface that is predetermined based on the confirmation message about whether to combine the received data that has the first to-be-confirmed label into the corresponding service item that is to be processed.

[0050] In some implementations, before the displaying a first message confirmation interface, the method can further include the following: monitoring whether there is an operation instruction for entering a processing interface of the service item that is to be processed, and in response to detecting the operation instruction for entering the processing interface of the service item that is to be processed, displaying the first message confirmation interface, where the first message confirmation interface includes the confirmation message about whether to combine the received data that has the first to-be-confirmed label into the corresponding service item that is to be processed.

[0051] FIG. 5 is a schematic diagram illustrating an implementation of a processing page of a collection service, according to the present application. It can be seen from FIG. 5 that a user can obtain data of a current progress of a collection service.

[0052] In a specific implementation, with reference to the previously described implementation of AA dinner, when it is detected that user A enters a processing interface of the collection service, a confirmation message indicating that user C transfers 27 RMB to you and whether to combine the information about the transfer into the collection service is displayed. Correspondingly, the user can determine, based on the confirmation message and the current progress of the collection service, whether to combine the data into the collection service, and can further help user A complete the service item that is to be processed. FIG. 6 is a schematic diagram illustrating an implementation of displaying a first message confirmation interface in a processing page of a collection service, according to the present application.

[0053] In addition, it is worthwhile to note that a page displaying the first message confirmation interface in the implementations of the present application is not limited to a form of the processing page of the collection service in FIG. 6, and can further include another form with reference to actual application situations. Implementations are not limited in the implementations of the present application.

[0054] In some implementations, the method can further include the following: when an execution result of the confirmation message is yes, combining the received data that has the first to-be-confirmed label into the service item that is to be processed.

[0055] Correspondingly, in some implementations, the method can further include the following: when an execution result of the confirmation message is no, removing the label from the received data that has the first to-be-confirmed label.

[0056] Specifically, the label removal processing can include removing the first to-be-confirmed label.

[0057] It can be learned from the implementation of the method for processing service data in the present application that, in the present application, whether the received data associated with obtained target data of the service item that is to be processed exists within the predetermined time period is determined, the first to-be-confirmed label that is in a one-to-one correspondence with the corresponding service item that is to be processed is set for the received data associated with the target data, and then the first message confirmation interface that includes the confirmation message about whether to combine the received data that has the first to-be-confirmed label into the corresponding service item that is to be processed is displayed to help a user complete the service item that is to be processed. Further, a

case in which a user performs service processing in another way instead of entering a service data payment processing interface can be effectively alleviated. Compared with the existing technology, the technical solutions provided in the implementations of the present application can help a user complete a service item that is to be processed, and can further release server resources, accelerate server processing speed, and improve user experience.

[0058] The following describes another implementation of a method for processing service data according to the present application. FIG. 7 is a schematic flowchart illustrating another implementation of a method for processing service data, according to the present application. Although the present application provides the operation steps of the method described in the implementation or flowchart, the method can include more or fewer operation steps based on a conventional or non-creative effort. A sequence of the steps listed in the implementation is merely one of numerous execution sequences of the steps, and does not represent a unique execution sequence. In actual execution of an apparatus or a client product, execution can be performed based on the method sequence shown in the implementation or the accompanying drawing, or performed in parallel (e.g., a parallel processor or a multi-thread processing environment). Specifically, as shown in FIG. 7, the method can include the following steps.

[0059] S710: Determine a target object of a service item that is to be processed.

[0060] In the present implementation of the present application, for example, the service item that is to be processed is an ongoing collection service, and the target object of the service item that is to be processed can include a corresponding payer. With reference to the previously described implementation of AA dinner, after entering a total amount and a total quantity of persons and tapping an OK button in FIG. 2, the user needs to send a request message of the collection service to a corresponding payer. Correspondingly, account information of the payer can be obtained as the target object of the service item that is to be processed. FIG. 8 is a schematic diagram illustrating a page of an implementation after a collection service is initiated, according to the present application. It can be seen from FIG. 8 that a user can tap a button of "select a payer" to send a request message of the collection service to a corresponding payer.

[0061] S720: Query whether received data sent by the target object exists within a predetermined time period.

[0062] In the present implementation of the present application, after the target object of the service item that is to be processed is determined, whether the received data sent by the target object exists within the predetermined time period can be queried. Specifically, the predetermined time period can include a time period predetermined based on a trigger time of the service item that is to be processed. Preferably, the predetermined time period includes at least one of the following time periods: a first time period before a generation time of the service item that is to be processed; a second time period after the generation time of the service item that is to be processed; a third time period before the generation time of the service item that is to be processed; or a fourth time period after the generation time of the service item that is to be processed.

[0063] In a specific implementation, the received data can include received transfer information, etc. For example, user X transfers 200 RMB to you.

[0064] S730: When a determining result is yes, set a second to-be-confirmed label for the received data sent by the target object.

[0065] In the present implementation of the present application, when the determining result in step S720 is yes, the second to-be-confirmed label can be set for the received data sent by the target object. Specifically, the second to-be-confirmed label can include predetermined labels that are in a one-to-one correspondence with corresponding service items that are to be processed.

[0066] S740: Display a second message confirmation interface, where the second message confirmation interface includes a confirmation message about whether to combine the received data that has the second to-be-confirmed label into the corresponding service item that is to be processed.

[0067] In the present implementation of the present application, the second message confirmation interface can be displayed. The second message confirmation interface includes the confirmation message about whether to combine the received data that has the second to-be-confirmed label into the corresponding service item that is to be processed. Specifically, the second message confirmation interface can include an interface that is predetermined based on the confirmation message about whether to combine the received data that has the second to-be-confirmed label into the corresponding service item that is to be processed.

[0068] In some implementations, before the displaying a second message confirmation interface, the method can further include the following: monitoring

whether there is an operation instruction for entering a processing interface of the service item that is to be processed, and in response to detecting that the operation instruction for entering the processing interface of the service item that is to be processed, displaying the second message confirmation interface, where the second message confirmation interface includes the confirmation message about whether to combine the received data that has the second to-be-confirmed label into the corresponding service item that is to be processed.

[0069] In some implementations, the method can further include the following: when an execution result of the confirmation message is yes, combining the received data that has the second to-be-confirmed label into the service item that is to be processed.

[0070] In some implementations, the method can further include the following: when an execution result of the confirmation message is no, removing the label from the received data that has the second to-be-confirmed label.

[0071] It can be learned from the implementation of the method for processing service data in the present application that, in the present application, whether the received data sent by the target object of the service item that is to be processed exists within the predetermined time period is determined, the second to-be-confirmed label that is in a one-to-one correspondence with the corresponding service item that is to be processed is set for the received data sent by the target object, and then the second message confirmation interface that includes the confirmation message about whether to combine the received data that has the second to-be-confirmed label into the corresponding service item that is to be processed is displayed to help a user complete the service item that is to be processed. Further, a case in which a user performs service processing in another way instead of entering a service data payment processing interface can be effectively alleviated. Compared with the existing technology, the technical solutions provided in the implementations of the present application can help a user complete a service item that is to be processed, and can further release server resources, accelerate server processing speed, and improve user experience.

[0072] Another aspect of the present application further provides an apparatus for processing service data. FIG. 9 is a schematic structural diagram illustrating an implementation of an apparatus for processing service data, according to the present application. As shown in FIG. 9, the apparatus 900 can include a target data

determining module 910, configured to determine target data of a service item that is to be processed; a first querying module 920, configured to query whether received data associated with the target data exists within a predetermined time period; a first label setting module 930, configured to set a first to-be-confirmed label for the received data associated with the target data when a result determined by the first querying module 920 is yes; and a first confirmation message display module 940, configured to display a first message confirmation interface, where the first message confirmation interface includes a confirmation message about whether to combine the received data that has the first to-be-confirmed label into the corresponding service item that is to be processed.

[0073] FIG. 10 is a schematic structural diagram illustrating another implementation of an apparatus for processing service data, according to the present application. As shown in FIG. 10, the apparatus 900 can further include a first data combination module 950, configured to combine the received data that has the first to-be-confirmed label into the service item that is to be processed when an execution result of the confirmation message is yes.

[0074] In another implementation, the apparatus 900 can further include a first label removal module, configured to remove the label from the received data that has the first to-be-confirmed label when an execution result of the confirmation message is no.

[0075] In another implementation, the apparatus can further include a first monitoring module, configured to monitor whether there is an operation instruction for entering a processing interface of the service item that is to be processed, where in response to detecting the operation instruction for entering the processing interface of the service item that is to be processed, the first message confirmation interface is displayed, and the first message confirmation interface includes the confirmation message about whether to combine the received data that has the first to-be-confirmed label into the corresponding service item that is to be processed.

[0076] In another implementation, the predetermined time period can include at least one of the following time periods: a first time period before a generation time of the service item that is to be processed; a second time period after the generation time of the service item that is to be processed; a third time period before the generation time of the service item that is to be processed; or a fourth time period after the generation time of the service item that is to be processed.

[0077] In another implementation, the received data associated with the target data can include at least one of the following: received data whose difference from the target data is less than or equal to a predetermined threshold; or received data that is in a multiple relationship with the target data.

[0078] The present application further provides another implementation of an apparatus for processing service data. FIG. 11 is a schematic structural diagram illustrating another implementation of an apparatus for processing service data, according to the present application. As shown in FIG. 11, an apparatus 1100 can include a target object determining module 1110, configured to determine a target object of a service item that is to be processed; a second querying module 1120, configured to query whether received data sent by the target object exists within a predetermined time period; a second label setting module 1130, configured to set a second to-be-confirmed label for the received data sent by the target object when a result determined by the second querying module 1120 is yes; and a second confirmation message display module 1140, configured to display a second message confirmation interface, where the second message confirmation interface includes a confirmation message about whether to combine the received data that has the second to-be-confirmed label into the corresponding service item that is to be processed.

[0079] FIG. 12 is a schematic structural diagram illustrating another implementation of an apparatus for processing service data, according to the present application. As shown in FIG. 12, the apparatus 1100 can further include a second data combination module 1150, configured to combine the received data that has the second to-be-confirmed label into the service item that is to be processed when an execution result of the confirmation message is yes.

[0080] In another implementation, the apparatus 1100 can further include a second label removal module, configured to remove the label from the received data that has the second to-be-confirmed label when an execution result of the confirmation message is no.

[0081] In another implementation, the apparatus can further include a second monitoring module, configured to monitor whether there is an operation instruction for entering a processing interface of the service item that is to be processed, where in response to detecting the operation instruction for entering the processing interface of the service item that is to be processed, the second message confirmation interface is displayed, and the second message confirmation interface includes the confirmation

message about whether to combine the received data that has the second to-be-confirmed label into the corresponding service item that is to be processed.

[0082] In another implementation, the predetermined time period can include at least one of the following time periods: a first time period before a generation time of the service item that is to be processed; a second time period after the generation time of the service item that is to be processed; a third time period before the generation time of the service item that is to be processed; or a fourth time period after the generation time of the service item that is to be processed.

[0083] Another aspect of the present application further provides an implementation of a client, where the client can include at least one processor; a memory storing programmed instructions, where the programmed instructions, when executed by the at least one processor, instruct the at least one processor to determine target data of a service item that is to be processed, query whether received data associated with the target data exists within a predetermined time period, set a first to-be-confirmed label for the received data associated with the target data when a determining result is yes, and send an instruction for displaying a first message confirmation interface, where the first message confirmation interface includes a confirmation message about whether to combine the received data that has the first to-be-confirmed label into the corresponding service item that is to be processed; and a display unit, coupled to the at least one processor, configured to display the first message confirmation interface when the processor detects an operation instruction for entering a processing interface of the service item that is to be processed, where the first message confirmation interface includes the confirmation message about whether to combine the received data that has the first to-be-confirmed label into the corresponding service item that is to be processed.

[0084] FIG. 13 is a schematic structural diagram illustrating an example implementation of a client, according to the present application.

[0085] In another implementation, the client program instruction can further include the following: when an execution result of the confirmation message is yes, combining the received data that has the first to-be-confirmed label into the service item that is to be processed.

[0086] In another implementation, the client program instruction can further include the following: when an execution result of the confirmation message is no, removing the label from the received data that has the first to-be-confirmed label.

[0087] The present application further provides another implementation of a client, where the client can include at least one processor; a memory storing programmed instructions, wherein the programmed instructions, when executed by the at least one processor, instruct the at least one processor to determine a target object of a service item that is to be processed, query whether received data sent by the target object exists within a predetermined time period, set a second to-be-confirmed label for the received data sent by the target object when a determining result is yes, and send an instruction for displaying a second message confirmation interface, where the second message confirmation interface includes a confirmation message about whether to combine the received data that has the second to-be-confirmed label into the corresponding service item that is to be processed; and a display unit, coupled to the at least one processor, configured to display the second message confirmation interface when the processor detects an operation instruction for entering a processing interface of the service item that is to be processed, where the second message confirmation interface includes the confirmation message about whether to combine the received data that has the second to-be-confirmed label into the corresponding service item that is to be processed.

[0088] In another implementation, the client program instruction can further include the following: when an execution result of the confirmation message is yes, combining the received data that has the second to-be-confirmed label into the service item that is to be processed.

[0089] In another implementation, the client program instruction can further include the following: when an execution result of the confirmation message is no, removing the label from the received data that has the second to-be-confirmed label.

[0090] Specifically, in the present implementation of the present application, the processor can include a central processing unit (CPU), and certainly, can further include a single-chip microcomputer with a logic processing capability, a logic gate circuit, an integrated circuit, etc, or an appropriate combination of them. The display unit can include a mobile device display screen, a projection device, etc.

[0091] It can be learned from the implementations of methods, apparatuses, and client devices for processing service data in the present application that, in the present application, the received data related to the service item that is to be processed is determined, the label that is to be confirmed and that is in a one-to-one correspondence with the corresponding service item that is to be processed is set for

the related received data, and then the message confirmation interface including the confirmation message about whether to combine the received data that has the label that is to be confirmed into the corresponding service item that is to be processed is displayed to help a user complete the service item that is to be processed. Further, a case in which a user performs service processing in another way instead of entering a service data payment processing interface can be effectively alleviated. Compared with the existing technology, the technical solutions provided in the implementations of the present application can help a user complete a service item that is to be processed, and can further release server resources, accelerate server processing speed, and improve user experience.

[0092] In the 1990s, whether technology improvement is hardware improvement (e.g., improvement of a circuit structure such as a diode, a transistor, or a switch) or software improvement (improvement of a method procedure) can be obviously distinguished. However, as technologies develop, the current improvement for many method procedures can be considered as a direct improvement of a hardware circuit structure. A designer usually programs an improved method procedure to a hardware circuit, to obtain a corresponding hardware circuit structure. Therefore, a method procedure can be improved by using a hardware entity module. For example, a programmable logic device (PLD) (e.g., a field programmable gate array (FPGA)) is such an integrated circuit, and a logical function of the programmable logic device is determined by a user through device programming. The designer performs programming to "integrate" a digital system to a PLD without requesting a chip manufacturer to design and produce an application-specific integrated circuit chip. In addition, the programming is mostly implemented by modifying "logic compiler" software instead of manually making an integrated circuit chip. This is similar to a software compiler used for program development and compiling. However, original code before compiling is also written in a specific programming language, which is referred to as a hardware description language (HDL). There are many HDLs, such as Advanced Boolean Expression Language (ABEL), Altera Hardware Description Language (AHDL), Confluence, Cornell University Programming Language (CUPL), HDCal, Java Hardware Description Language (JHDL), Lava, Lola, MyHDL, PALASM, and Ruby Hardware Description Language (RHDL). Currently, Very-High-Speed Integrated Circuit Hardware Description Language (VHDL) and Verilog are most commonly used. A person skilled in the art should also understand

that a hardware circuit that implements a logical method procedure can be readily obtained once the method procedure is logically programmed by using the several described hardware description languages and is programmed into an integrated circuit.

[0093] A controller can be implemented in any appropriate way. For example, the controller can be a microprocessor, a processor, or a computer readable medium, a logic gate, a switch, an application-specific integrated circuit (ASIC), a programmable logic controller, or an embedded microcontroller that stores computer readable program code (for example, software or firmware) that can be executed by the processor (or the microprocessor). Examples of the controller include but are not limited to the following microcontrollers: ARC 625D, Atmel AT91SAM, Microchip PIC18F26K20, or Silicon Labs C8051F320. A memory controller can also be implemented as a part of control logic of the memory. A person skilled in the art also knows that a controller can be implemented by using a pure computer readable program code method, and the method steps can be logically programmed to enable the controller to implement the same functions in forms of a logic gate, a switch, an application-specific integrated circuit, a programmable logic controller, an embedded microcontroller, etc. Therefore, the controller can be considered as a hardware component, and an apparatus included in the controller and configured to implement various functions in the controller can also be considered as a structure in a hardware component. Alternatively, an apparatus configured to implement various functions can be considered as a software module that can implement the method or a structure in a hardware component.

[0094] The apparatuses and modules illustrated in the previous implementations can be implemented by using a computer chip or an entity, or can be implemented by using a product that has a certain function. A typical implementation device is a computer. Specifically, the computer can be, for example, a personal computer, a laptop computer, a cellular phone, a camera phone, a smartphone, a personal digital assistant, a media player, a navigation device, an email device, a game console, a tablet computer, a wearable device, or a combination of any of these devices.

[0095] For ease of description, the previous apparatuses are described by dividing the functions into various modules. Certainly, when the present application is implemented, the functions of each module can be implemented in one or more pieces of software and/or hardware.

[0096] A person skilled in the art should understand that an implementation of the present disclosure can be provided as a method, an apparatus, 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. In addition, the present disclosure can use a form of a computer program product implemented on one or more computer-usable storage media (including but not limited to a magnetic disk memory, a compact disc read-only memory (CD-ROM), and an optical memory) that include computer-usable program code.

[0097] The present disclosure is described with reference to the flowcharts and/or block diagrams of the method, the device (apparatus), and the computer program product based on 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.

[0098] 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 way, 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.

[0099] 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.

[0100] In a typical configuration, a computing device includes one or more processors (CPU), one or more input/output interfaces, one or more network interfaces, and one or more memories.

[0101] The memory may include a non-persistent memory, a random access memory (RAM), and/or a non-volatile memory 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.

[0102] The computer readable medium includes persistent, non-persistent, movable, and unmovable media that can store information by using any method or technology. The information can be a computer readable instruction, a data structure, a program module, or other data. Examples of a computer storage medium include but are not limited to a phase-change random access memory (PRAM), a static random access memory (SRAM), a dynamic random access memory (DRAM), another type of random access memory (RAM), 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 or another magnetic storage device or any other non-transmission medium. The computer storage medium can be used to store information that can be accessed by a computing device. As described in the present specification, the computer readable medium does not include computer readable transitory media (transitory media) such as a modulated data signal and a carrier.

[0103] It is worthwhile to further note that the terms "include", "comprise", or their any other variants are intended to cover a non-exclusive inclusion, so that a process, a method, an article, or a device that includes a list of elements not only includes those elements but also includes other elements which are not expressly listed, or further includes elements inherent to such a 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.

[0104] A person skilled in the art should understand that an implementation of the present application can be provided as a method, an apparatus, 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 implemented on one or more computer-usable storage media (including but not limited to a magnetic disk memory, a compact disc read-only memory (CD-ROM), and an optical memory) that include computer-usable program code.

[0105] The present application can be described in common contexts of computer executable instructions executed by a computer, such as a program module. Generally, the program module includes a routine, a program, an object, a component, a data structure, etc. executing a specific task or implementing a specific abstract data type. The present application can also be practiced in distributed computing environments. In these distributed computing environments, tasks are executed by remote processing devices that are connected by using a communications network. In the distributed computing environments, the program module can be located in local and remote computer storage media that include storage devices.

[0106] The implementations of the present specification are described in a progressive way. For same or similar parts in the implementations, references can be made to the implementations. Each implementation focuses on a difference from other implementations. Particularly, an apparatus or client implementation is basically similar to the method implementation, and therefore is described briefly. For related parts, references can be made to partial descriptions in the method implementation.

[0107] The previous descriptions are merely implementations of the present application, and are not intended to limit the present application. A person skilled in the art can make various modifications and changes to the present application. Any modification, equivalent replacement, or improvement made without departing from the spirit and principle of the present application shall fall within the scope of the claims in the present application.

CLAIMS

1. A computer-implemented method for processing service data, the computer-implemented method comprising:

determining a target object of a service item that is to be processed, wherein the service item is an ongoing collection service with one or more payers and the target object includes account information of a first payer of the one or more payers, wherein the collection service is initiated by a user to receive payment from the one or more payers, wherein the collection service provides a corresponding payment interface based on a request message of the collection service sent by the user for payers to complete the collection service;

receiving, from the target object, received data;

determining whether the received data is within a predetermined time period of a generation time of the service item, wherein the received data was not sent by the first payer using the payment interface of the collection service;

in response to determining that the received data sent by the first payer in the target object is within the predetermined time period, setting a to-be-confirmed label for the received data sent by the target object, wherein the to-be-confirmed label is in a one-to-one correspondence with the service item; and

displaying a message in a message confirmation interface to the user, wherein the message confirmation interface comprises a confirmation message to determine whether to combine the received data that has the to-be-confirmed label into the service item that is to be processed.

2. The computer-implemented method of claim 1, further comprising:

in response to determining to combine the received data that has the to-be-confirmed label into the service item that is to be processed, combining the received data that has the to-be-confirmed label into the service item that is to be processed.

3. The computer-implemented method of claim 2, further comprising:

in response to determining not to combine the received data that has the to-be-confirmed label

into the service item that is to be processed, removing the to-be-confirmed label from the received data that has the to-be-confirmed label.

4. The computer-implemented method of claim 1, further comprising:

monitoring whether there is an operation instruction for entering a processing interface of the service item that is to be processed; and

in response to detecting the operation instruction for entering the processing interface of the service item that is to be processed, displaying the message confirmation interface, wherein the message confirmation interface comprises the confirmation message about whether to combine the received data that has the to-be-confirmed label into the service item that is to be processed.

5. The computer-implemented method of claim 1, wherein the predetermined time period comprises at least one of:

a first time period before the generation time of the service item that is to be processed, the generation time indicating a time corresponding to a generation of the service item; and

a second time period after the generation time.

6. The computer-implemented method of claim 1, wherein the received data comprises at least one of:

first received data whose difference from target data is less than or equal to a predetermined threshold; and

second received data that is in a multiple relationship with the target data.

7. The computer-implemented method of claim 1, further comprising: receiving a user input comprising a request to process the service item.

8. The computer-implemented method of claim 7, wherein the user input comprises object data associated with the service item, the object data comprising the target object.

9. An apparatus for processing service data, the apparatus comprising a plurality of modules configured to perform the computer-implemented method of any one of claims 1 to 8.