METHOD AND APPARATUS FOR SHARING REGIONAL INFORMATION

TECHNICAL FIELD

[0001] The present application relates to third-party payment platform technologies and information sharing technologies, and in particular, to a method and an apparatus for sharing regional information.

BACKGROUND

[0002] When a user pays related fees to a public utility payment institution (briefly referred to as a payment institution below, such as a gas company, a water company, or State Grid) on a third-party payment platform (such as ALIPAY, TENPAY, WeChat Pay, or LAKALA), because bill generation time of the payment institution is not fixed, or because the payment institution does not allow the third-party payment platform to obtain bill generation information of the payment institution in order to protect customer privacy, the third-party payment platform cannot automatically query a bill by using a regular query mechanism. Because the payment institution cannot provide the third-party payment platform with the bill generation information, the third-party payment platform cannot notify a user of the bill generation information in real time, and the user can only actively query the payment institution on the third-party payment platform for whether a bill is generated. Many users often fail to pay fees in time because they forget to query bills, causing personal credit losses, and bringing a huge obstacle to handling various credit products in the future.

SUMMARY

[0003] According to an aspect of the present application, there is provided a method for sharing regional information. The method includes: receiving a user input on a third-party payment platform; retrieving a payment bill query request based on

the user input; determining, based on the payment bill query request, whether a payment institution has generated a payment bill; in response to determining that the payment institution has generated the payment bill, retrieving user information based on the payment bill, wherein the user information comprises a region that the user belongs to; determining whether the information for notifying that the payment institution has generated the payment bill has not been pushed to the region that the user belongs to; and in response to determining that the information for notifying that the payment institution has generated the payment bill has not been pushed to the region that the user belongs to, pushing, by using a third-party payment platform account, information for notifying that the payment institution has generated a payment bill to all users in the region that the user belongs to.

[0003a] According to another aspect of the present application, there is provided an apparatus for sharing regional information. The apparatus includes a plurality of modules configured to perform the aforementioned method.

[0003b] The present application provides a method for sharing regional information, where the method for sharing regional information includes: obtaining a payment bill query request initiated by a user on a third-party payment platform;

obtaining user information based on a payment bill if finding, based on the payment bill query request, that a payment institution has generated the payment bill, where the user information includes a region that the user belongs to; and pushing, by using a third-party payment platform account, information for notifying that the payment institution has generated a payment bill to all users in the region that the user belongs to, if the information for notifying that the payment institution has generated a payment bill has not been pushed to the region that the user belongs to.

[0004] The present application provides an apparatus for sharing regional information, where the apparatus for sharing regional information includes: a request acquisition unit, configured to obtain a payment bill query request initiated by a user on a third-party payment platform; a user information acquisition unit, configured to obtain user information based on a payment bill, where the user information includes a region that the user belongs to; and an information push unit, configured to push, by using a third-party payment platform account, information for notifying that a payment institution has generated a payment bill to all users in the region that the user belongs to.

[0005] In the implementations of the present application, on a premise that a payment institution does not provide a third-party payment platform with bill generation information, accurate bill generation information of the payment institution is pushed to other users on the third-party payment platform based on a query performed by a certain user by using the third-party payment platform, to prevent the user from missing a payment period.

[0006] Certainly, any product or method that implements the present application unnecessarily needs to achieve all the previous advantages.

BRIEF DESCRIPTION OF DRAWINGS

[0007] 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 show merely some implementations of the present application, and a person of ordinary skill in the art can still derive other drawings from these accompanying drawings without creative efforts.

[0008] FIG. 1 is a schematic diagram illustrating an application scenario during service implementation, according to the present application;

[0009] FIG. 2A and FIG. 2B are schematic interface diagrams illustrating querying a gas payment bill by a user;

[0010] FIG. 3 is a flowchart illustrating a method for sharing regional information, according to an implementation of the present application;

[0011] FIG. 4 is a flowchart illustrating a method for obtaining user information, according to an implementation of the present application;

[0012] FIG. 5 is a schematic diagram illustrating querying a region that a user belongs to, according to an implementation of the present application;

[0013] FIG. 6 is a schematic diagram illustrating pushing regional information on ALIPAY, according to an implementation of the present application;

[0014] FIG. 7 is a structural block diagram illustrating an apparatus for sharing regional information, according to an implementation of the present application;

[0015] FIG. 8 is a structural block diagram illustrating an apparatus for sharing regional information, according to an implementation of the present application;

[0016] FIG. 9 is a structural block diagram illustrating a user information acquisition unit, according to an implementation of the present application; and

[0017] FIG. 10 is a structural block diagram illustrating an apparatus for sharing regional information, according to an implementation of the present application.

DESCRIPTION OF IMPLEMENTATIONS

[0018] 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 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.

[0019] FIG. 1 is a schematic diagram illustrating an application scenario during service implementation, according to the present application. The technical solutions in the implementations of the present application can implement a related payment information push service such as gas bill generation information push, electricity bill

generation information push, or water bill generation information push between a user and a payment platform server. In the existing technology, when a related monitoring service is implemented, a client (for example, client A) usually sends a payment bill query request to the payment platform server by using a third-party payment platform, and client A receives a payment bill found by the payment platform server. FIG. 2A and FIG. 2B are schematic interface diagrams illustrating querying a gas payment bill by a user. In FIG. 2A, the user enters a query interface of a third-party payment platform, and the user clicks "Gas Bill" to obtain a query result (the bill is not generated) shown in FIG. 2B. Based on the implementation method, users (including client A, client B, and client C) need to query a payment bill by using a third-party payment platform each time. Many users often fail to pay fees in time because they forget to query payment bills, causing personal credit losses, and bringing a huge obstacle to handling various credit products in the future.

[0020] In view of this, an implementation of the present application provides a method for sharing regional information, to push information to a user in time after a payment institution generates a bill. FIG. 3 is a flowchart illustrating a method for sharing regional information, according to an implementation of the present application. The method for sharing regional information is executed by a payment platform server. As shown in FIG. 3, the method for sharing regional information includes the following steps:

[0021] S301. Obtain a payment bill query request initiated by a user on a third-party payment platform.

[0022] A payment amount bill of a payment service is generally provided by a payment institution (an institution that charges a service fee paid by a user). If a user does not know whether a bill of a certain payment service is generated, the user can initiate a payment bill query request by using a third-party payment platform. The payment bill query request is received by the payment platform server. The payment platform server can query a payment bill from the payment institution based on the payment bill query request.

[0023] S302. Obtain user information based on a payment bill if finding, based on the payment bill query request, that a payment institution has generated the payment bill, where the user information includes a region that the user belongs to.

[0024] The payment platform server can determine, based on a result of querying the payment bill from the payment institution, whether the payment institution has

generated the payment bill. If the payment platform server finds the payment bill of the user, it indicates that the payment institution has generated the payment bill. Otherwise, the payment institution has not generated the payment bill.

[0025] When the payment institution has generated the payment bill, the payment platform server can obtain the user information based on the payment bill. The user information includes the region that the user belongs to.

[0026] In an implementation, as shown in FIG. 4, the obtaining user information based on a payment bill can include the following steps:

[0027] S401. Obtain service account information of the user based on the payment bill.

[0028] The payment bill records the server account information of the user. For example, a payment bill of an electricity payment service records a customer number of a user: 1003427548. The customer number is the service account information.

[0029] S402. Query a user address based on the service account information.

[0030] The service account information is used to identify different users, and the user address can be queried from the payment institution by using the service account information. As shown in FIG. 5, the payment institution records the user address corresponding to the service account information: 1-107, building No. 2, Boxing Road 9.

[0031] S403. Query, based on the user address, the region that the user belongs to.

[0032] The region that the user belongs to can be queried based on the user address. The region that the user belongs to can be a community or a street that the user lives in, an administrative region that the user belongs to, etc. With reference to FIG. 5, for a user whose user address is 1-107, building No. 2, Boxing Road 9, a corresponding community that the user lives in is *** International Industrial Park.

[0033] S303. Push, by using a third-party payment platform account, information for notifying that the payment institution has generated a payment bill to all users in the region that the user belongs to, if the information for notifying that the payment institution has generated a payment bill has not been pushed to the region that the user belongs to.

[0034] If another user has initiated a payment bill query request on a third-party payment platform and a payment bill has been found before a certain user initiates a payment bill query request on the third-party payment platform, the payment platform server possibly has pushed, by using the third-party payment platform, information

that a current-period payment bill has been generated to a region that the user belongs to. In this case, in the present application, the information that a current-period payment bill has been generated does not need to be pushed, by using a third-party payment platform account, to all users in the region that the user belongs to. Therefore, the payment platform server needs to first determine whether the information that a current-period payment bill has been generated has been pushed to the region that the user belongs to. If the payment platform server has not push the information that a current-period payment bill has been generated to the region that the user belongs to, the payment platform server can push, by using the third-party payment platform account, the information that a current-period payment bill has been generated to all the users in the region that the user belongs to.

[0035] In this implementation of the present application, on a premise that a payment institution does not provide a third-party payment platform with bill generation information, accurate bill generation information of the payment institution is pushed to other users on the third-party payment platform based on a query performed by a certain user by using the third-party payment platform, to prevent the user from missing a payment period.

[0036] The following uses ALIPAY in third-party payment platforms as an example, and describes the present application with reference to a specific example.

[0037] ALIPAY has a large number of users, and a payment account of a user can be associated with an address of the user. The user can log in to ALIPAY by using a device such as a mobile device or a PC to perform a service operation, for example, to query a payment bill or make a payment.

[0038] As shown in FIG. 6, user A initiates a payment bill query request by using ALIPAY, to query information such as a current-period payment amount and a current-period payment date. After receiving the payment bill query request, a server end queries a current-period payment bill of user A from a payment institution based on the payment bill query request. If finding the current-period payment bill, the server end can know that the payment institution has generated the bill, and the server end can store the current-period payment bill of user A. The server end can first query a service account of user A (for example, an electricity purchase card customer number of user A: 1003427548) based on the payment bill; then can query a user address of user A based on the service account; and finally can query, based on the user address, a region that user A belongs to. If user A is the first user who queries a

current-period payment bill in the region that user A belongs to, the server end can push information to another ALIPAY user in the region that user A belongs to, to notify the another ALIPAY user that the charging institution has generated a bill and a payment can be made. If the user A is not the first user who queries a current-period payment bill in the region that user A belongs to, the server possibly has pushed bill generation information to ALIPAY users in the region that user A belongs to, and the server end can find that the information that a current-period payment bill has been generated has been pushed. In this case, the server end does not need to push the bill generation information to the ALIPAY users in the region that user A belongs to.

[0039] Based on the same inventive concept as the method for sharing regional information, the present application provides an apparatus for sharing regional information, as described in the following implementation. A problem resolving principle of the apparatus for sharing regional information is similar to a problem resolving principle of the method for sharing regional information. Therefore, for implementation of the apparatus for sharing regional information, references can be made to implementation of the method for sharing regional information, and details are omitted for simplicity.

[0040] FIG. 7 is a structural block diagram illustrating an apparatus for sharing regional information, according to an implementation of the present application. The apparatus for sharing regional information can be a third-party payment platform server. As shown in FIG. 7, the apparatus for sharing regional information includes a request acquisition unit 701, a user information acquisition unit 702, and an information push unit 703.

[0041] The request acquisition unit 701 is configured to obtain a payment bill query request initiated by a user on a third-party payment platform.

[0042] The user information acquisition unit 702 is configured to obtain user information based on a payment bill, where the user information includes a region that the user belongs to. During specific implementation, the region that the user belongs to can be a community or a street that the user lives in, an administrative region that the user belongs to, etc.

[0043] The information push unit 703 is configured to push, by using a third-party payment platform account, information for notifying that a payment institution has generated a payment bill to all users in the region that the user belongs to.

[0044] In an implementation, as shown in FIG. 8, the apparatus for sharing

regional information further includes a bill query unit 801, configured to query the payment bill based on the payment bill query request.

[0045] In an implementation, as shown in FIG. 9, the user information acquisition unit 702 includes: a service account acquisition module 901, configured to obtain service account information of the user based on the payment bill; an address query module 902, configured to query a user address based on the service account information; and a region query module 903, configured to query, based on the user address, the region that the user belongs to.

[0046] In an implementation, as shown in FIG. 10, the apparatus for sharing regional information further includes: a determining unit 1001, configured to determine whether the information for notifying that the payment institution has generated a payment bill has been pushed to the region that the user belongs to.

[0047] In this implementation of the present application, on a premise that a payment institution does not provide a third-party payment platform with bill generation information, accurate bill generation information of the payment institution is pushed to other users on the third-party payment platform based on a query performed by a certain user by using the third-party payment platform, to prevent the user from missing a payment period.

[0048] 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 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 memory, a CD-ROM, an optical memory, etc.) that include computer-usable program code.

[0049] The present application 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 application. It should be understood 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 specified function in one or more processes in the flowcharts and/or in one or more blocks in the block diagrams.

[0050] These computer program instructions can alternatively 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 specified function in one or more processes in the flowcharts and/or in one or more blocks in the block diagrams.

[0051] These computer program instructions can alternatively 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 specified function in one or more processes in the flowcharts and/or in one or more blocks in the block diagrams.

[0052] Specific implementations are used in the present application to describe the principles and implementations of the present application. The previous descriptions of the implementations are merely intended to help understand the method and the core idea of the present application. In addition, a person of ordinary skill in the art can make a change to the present application in terms of a specific implementation and an application scope based on the idea of the present application. In conclusion, the content of the present specification shall not be construed as a limitation to the present application.

CLAIMS

1. A method for sharing regional information, the method comprising:

obtaining, at a payment platform server, a payment bill query request initiated by a user through a third-party payment platform;

determining, by the payment platform server, based on a result of querying a payment bill from a payment institution based on the payment bill query request, whether the payment institution has generated the payment bill for the user;

in response to determining that the payment institution has generated the payment bill for the user:

obtaining, by the payment platform server and based on the payment bill, user information associated with the user, wherein the user information comprises a region that the user belongs to, comprising:

obtaining service account information of the user based on the payment bill, the service account information being used to identify different users;

querying a user address based on the service account information from the payment institution; and

querying, based on the user address, the region that the user belongs to;

determining, by the payment platform server, whether information for notifying that the payment institution has generated a current-period payment bill has been pushed to the region that the user belongs to; and

in response to determining that the information for notifying that the payment institution has generated the current-period payment bill has not been pushed to the region that the user belongs to:

pushing, by the payment platform server, the information for notifying that the payment institution has generated the current-period payment bill to one or more other users associated with the third-party payment platform within the region that the user belongs to through an account of the third-party payment platform.

2. The method according to claim 1, further comprising:

querying the payment bill based on the payment bill query request.

3. The method according to claim 1, wherein determining whether the information for notifying that the payment institution has generated the current-period payment bill has been pushed to the region that the user belongs to comprises determining whether the user is a first user initiating the payment bill query request within the region that the user belongs to.

4. The method according to claim 1, wherein the region that the user belongs to is a community or a street that the user lives in.

5. The method for sharing regional information according to claim 1, wherein the region that the user belongs to is an administrative region that the user belongs to.

6. An apparatus for sharing regional information, the apparatus comprising a plurality of modules configured to perform the method of any one of claims 1 to 5.