Innovation, Sciences et Développement économique Canada
Office de la Propriété Intellectuelle du Canada

Innovation, Science and Economic Development Canada
Canadian Intellectual Property Office

CA 3024736 A1 2017/01/05

(21) 3 024 736

(12) DEMANDE DE BREVET CANADIEN
CANADIAN PATENT APPLICATION

(13) A1

(86) Date de dépôt PCT/PCT Filing Date: 2015/06/30
(87) Date publication PCT/PCT Publication Date: 2017/01/05
(85) Entrée phase nationale/National Entry: 2018/11/19
(86) N° demande PCT/PCT Application No.: CN 2015/082792
(87) N° publication PCT/PCT Publication No.: 2017/000192

(51) Cl.Int./Int.Cl. *G06Q 30/06* (2012.01)

(71) Demandeur/Applicant:
10353744 CANADA LTD., CA

(72) Inventeur/Inventor:
ZHANG, YI, CN

(74) Agent: HINTON, JAMES W.

(54) Titre : PROCEDE DE TRAITEMENT D'INTERACTION D'INFORMATIONS, ET TERMINAL ET SYSTEME ASSOCIES
(54) Title: INFORMATION INTERACTION PROCESSING METHOD, AND TERMINAL AND SYSTEM THEREFOR

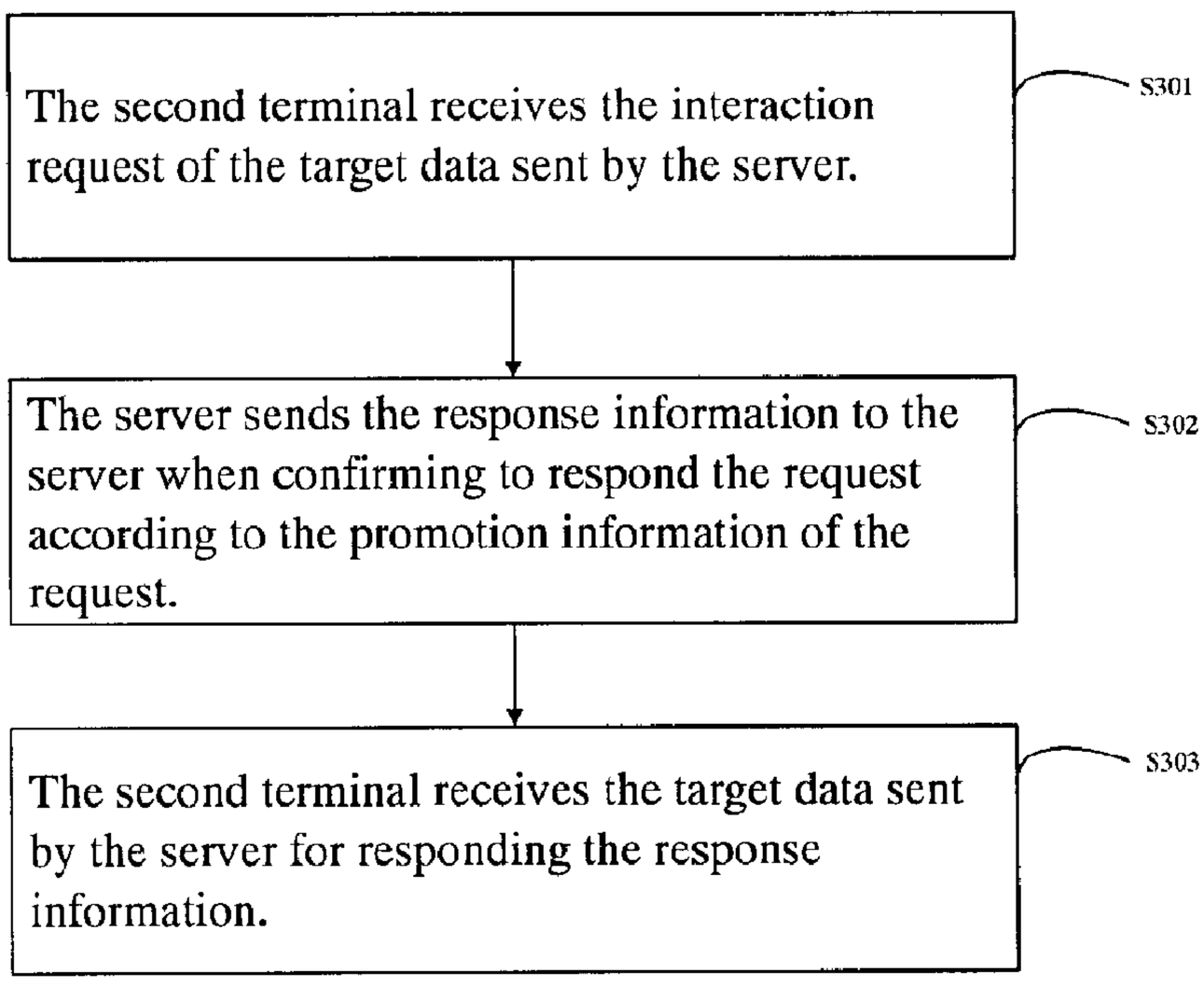

Figure 3

(57) Abrégé/Abstract:
Disclosed are an information interaction processing method, and a terminal and system therefor. The information interaction processing method comprises: a server receives an interaction request sent by a first terminal and including target data recommendation information, a preset time for releasing the recommendation information and target data; the server searches according to requirement information for a second terminal matching the recommendation information; the server sends a request for receiving the target data to a found second terminal within the preset time; upon receiving reply information sent by the second terminal in response to the request, the server sends the target data to the second terminal. The present invention releases the interaction request to an eligible second terminal according to a preset time, simplifies an interaction process, and thereby increases the matching speed and efficiency.

Abstract

Disclosed are an information interaction processing method, and a terminal and system therefor. The information interaction processing method comprises: a server receives an interaction request sent by a first terminal and including target data recommendation information, a preset time for releasing the recommendation information and target data; the server searches according to requirement information for a second terminal matching the recommendation information; the server sends a request for receiving the target data to a found second terminal within the preset time; upon receiving reply information sent by the second terminal in response to the request, the server sends the target data to the second terminal. The present invention releases the interaction request to an eligible second terminal according to a preset time, simplifies an interaction process, and thereby increases the matching speed and efficiency.

Information Interaction Processing Method, And Terminal and System Therefor

Technical Field

[1] The present invention relates to the information interaction field, and in particular, to a method, terminal and system of data exchange processing.

Background Technology

[2] With the development of Internet technology, especially mobile Internet technology, users can access to the Internet through mobile devices using 2G,3G,4G or WIFI to conduct interaction and social activities. Users can conveniently and effectively perform online activities, this is an incomparable experience with offline. But there is no effective solution about using the Internet faster to find out users' required information yet.

[3] As an example of a data exchange processing in user's living scene of common day, when users purchase products online, they usually search keywords on the platform provided by the Internet, and screen what they would like to purchase from a large amount of search results. In this way, when the information obtained through the keyword matches the information actually required by the user is not high, the user cannot obtain the required information quickly and accurately. So that purchasing product is inefficient.

Summary of the Invention

[4] An object of the present invention is to provide a data interaction processing method, device and system, which can improve efficiency of data interaction.

[5] To solve the problem above, the first technical solution adopted by the present invention is to provide

a data interaction process method, which includes that the server receives the promotion information of the target data and the preset time of posting the promotion information and the interaction request of the target data; search the second terminal matching with the promotion information; send the receiving request of target data to the searched second terminal within the preset time; send the target data to the second terminal when responding the request.

[6] To solve the problem above, the second technical solution adopted by the present invention is to provide a data interaction process method, which includes that the second terminal receives the receiving request of the target data sent by the server; thereinto, the interaction request refers to the promotion information of the target data and the preset time of posting the promotion information and the interaction request of the target data, the interaction request includes the promotion information as well; send the response information to the server when confirming to respond the request according to the promotion information; receive the target data sent by the server for responding the request.

[7] To solve the problem above, the third technical solution adopted by the present invention is to provide a data interaction process device, which includes that a receiving module, a query module, a requesting module and an interacting module; the receiving module is used to receive the promotion information of the target data sent by the first terminal, the preset time of posting the promotion information and the interaction request of the target data; the query module is used to search the second terminal matching with the promotion information according to the required information; the requesting module is used to send the receiving request of target data to the searched second terminal within the preset time; the interacting module is used to send the target data to the second terminal when responding the request.

[8] To solve the problem above, the forth technical solution adopted by the present invention is to provide a data interaction process device, which includes a receiving module, a confirming module and an interacting module; the receiving module is used to receive the receiving request of the target data sent by the server; thereinto, the interaction request refers to the promotion information of the target data and the preset time of posting the promotion information and the interaction request of the target data, the interaction request includes the promotion information as well; the confirming module is used to send the response information to the server when confirming to respond the request according to the promotion information; the interacting module is used to receive the target data sent by the server for responding the request.

[9] To solve the problem above, the fifth technical solution adopted by the present invention is to provide a data interaction process system, which includes the first terminal, the server and the second terminal; the first terminal is used to send the promotion information of the target data and the preset time of posting the promotion information and the interaction request of the target data; the server is used to receive the interaction request, and search the second terminal matching with the promotion information, and send the receiving request of target data to the searched second terminal within the preset time; the second terminal is used to send the response information to the server when confirming to respond the request; the server is also used to send the target data to the second terminal when receiving the response information; the second terminal is also used to receive the target data sent by the server for responding the request.

[10] In the solution above, the first terminal sends the promotion information of the target data and the preset time of posting the promotion information to the server, the server sends the promotion information of the target data to the qualified second terminals within the preset time and sends the matched target data to the second terminal when confirming to respond this request. It enables the second terminal to complete the data interaction. The server matches the related information submitted by the first terminal and the second terminal in order to improve the efficiency of the server.

Brief Description of the Drawings

[11] Figure 1 is a schematic flow chart of a data interaction processing system applied by an example of the present invention;

[12] Figure 2 is a schematic flow chart of a data interaction processing method applied by the first example of the present invention;

[13] Figure 3 is a schematic flow chart of a data interaction processing method applied by the second example of the present invention;

[14] Figure 4 is a schematic structural diagram of a data interaction processing device applied by the first example of the present invention;

[15] Figure 5 is a schematic structural diagram of a data interaction processing device applied by the second example of the present invention.

Description of the Preferred Examples

[16] For a clearer understanding of the objectives, technical solutions, and advantages of the present invention, the specific examples of the present invention will be described in detail with reference to the accompanying drawings.

[17] Please refer to Figure 1, Figure 1 is a schematic flow chart of a data interaction processing system applied by an example of the present invention; The data interaction processing system 100 in this example includes the first terminal 110, the server 120 and the second terminal 130. Understandably, the only one first terminal and the second terminal are shown wherein the system of the Figure 1. In fact, the system 100 can include the multiple first terminals 110 and second terminals 130. The first terminal 110 and the second terminal 130 may be the clients for data interaction, or the devices for executing the clients, such as computers, cellphones etc.

[18] The first terminal 110 is used to send the promotion information of the target data and the preset time of posting the promotion information and the interaction request of the target data.

[19] Thereinto, the required information of the target data comprises the identification information of the target data at least. To improve the accuracy of matching data, the required information of the target data also includes at least one of the information of specification and description.

[20] The server 120 is used to receive the interaction request. The second terminal 130 is searched for matching with the required information and the searched second terminal is received the request of the target data by the first terminal 110 within the preset time.

[21] The server 120 receives the interaction request sent by the first terminal 110 and searches the second terminal 130 matching with the required information wherein the local database according to the required information of the target data. Thereinto, the data wherein the local database of the server is uploaded and stored by the second terminal 130 in advance.

[22] The server 120 sends the receiving request of the target data to the searched second terminal 130 within the preset time after searching out the second terminal 130 matching with the promotion information of the target data sent by the first terminal 110.

[23] For example, when the preset time of posting the promotion information is set at 09:30, the server searches the second terminal matching with the promotion information of target data sent by the first terminal, once the actual time is at 09:30, the server sends the request of the target data sent by the first terminal to the searched second terminal.

[24] Thereinto, the time of server 120 is synchro with the standard time.

[25] The server 120 also can send the related information of the first terminal to the second terminal 130, for example, contact information, location information, purchasing history, credit rating etc.

[26] The second terminal 130 is also used to send the response information to the server 120 when confirming to respond this request.

[27] The second terminal 130 receives the request sent by the server and confirms to respond this request depending on the promotion information of the request. For example, if the corresponding target data of the promotion information is the second terminal's own matched target data, the second terminal confirms to respond this request. Then, the second terminal sends the response information to the server 120. Thereinto, the response information also includes the identification tag with the target data which is corresponding to the promotion information and the second terminal's own target data.

[28] The server 120 is used to send the target data to the second terminal 130 when receiving the response information.

[29] The server 120 receives the response information sent by the second terminal 130, depending on the acquisition of response information and the target data matching with the identification tag of target data wherein the response information, sends the acquired target data to the second terminal which has sent the response information.

[30] The second terminal 130 is used to receive the target data which is sent by the server 120 for responding the response information.

[31] The second terminal receives the target data sent by the server 120 and confirms to interact the target data according to the target data. When confirming to accept this target data, the transaction order can be generated according to the target data. When confirming not to accept this Object Credit Certificate, this target data can be refused.

[32] Further, the first terminal 110 is also used to receive the generated value-added data, which is generated by the target data's provider for providing the added interacting target data to the data unit of the second terminal after the second terminal 130 receiving the target data sent by the server 120.

[33] In the solution above, this target data is an Object Credit Certificate or acquisition method information of an Object Credit Certificate. This Object Credit Certificate is a kind of web-based electronic certificate integrated the target commodity/service information from the target

commodity/service provider and the essential functions of electronic commerce.

[34] Further, acquisition method information of an Object Credit Certificate is a link address of an Object Credit Certificate, an Object Credit Certificate is used to provide the target commodity/service information and the essential functions of electronic commerce. For example, when the first terminal or the second terminal(or other interaction parties) has the Object Credit Certificate of commodity/service, the link address can be clicked or selected, the certificate is opened directly and showed in the webpage, the webpage is used to provide the target commodity/service information and the essential functions of electronic commerce, such as the introduction of target commodity/service, specifications, purchasing records, reviews and the jumpable order generation interface or the link button of payment interface etc. More preferably, all the functions of the required order generation are completed automatically when the link can be clicked. In this way, the order generation can be completed by one-click, even the order generation and payment can be completed by one-click.

[35] Thereinto, the provider provides the corresponding Object Credit Certificate of every commodity/server and uploads it to the corresponding server's platform to manage and show. The first terminal acquires (such as downloading to the local) the corresponding Object Credit Certificate as required (such as opening the link address to select the commodity/service) and binds the identification information to every acquired Object Credit Certificate.

[36] An example of data interaction method applied by the present invention is showed as below.

[37] For example, the first terminal is the client A, the server is the data management server, the second terminal is the client B. Thereinto, every client B has the stored one or multiple documents, which is used to store the solution information. The client A, the client B and terminal devices may be a personal computer, a tablet, a smartphone etc. which can access to the Internet and exchange data with the data management server.

[38] The client A sends the required information of the solution information including the document X and the interaction request of the preset time for posting the promotion information to the data management server. The time is required as the time of posting the acquisition of the required information of the solution information of the document X to the client B, this time must meet the requirement of the preset time. Thereinto, X may be the identification of the solution. For example, the client A needs to post the promotion information at some time and requires the data management server to send this required information to the client B at that time.

[39] This data management server acquired and stored the information of all the documents wherein the client B in advance. When receiving the interaction request and conforming the information of the document X wherein the client B5 matching with the requirement of the promotion information, the data management server sends the request of acquisition of the solution information of the document X to the client B5 at the preset time.

[40] When the client B5 receiving the request and confirming to the stored solution information of the document X and responding the interaction request, the client B5 sends the response information to the data management server. When receiving the response information, the data management server sends the corresponding target data to the client B5. The client B5 receives the target data. Thereinto, for safety of data information, the target data may be the data pack encrypted by the solution information of the document X and the encryption keys for deciphering. When accepted by the client B5, the data pack can be deciphered and unzipped using with the encryption keys and another encryption key encrypted by the solution information of the document X, then the solution information of the document X can be obtained.

[41] In the solution above, the first terminal sends the promotion information of the target data and the preset time of posting the promotion information to the server, the server sends the promotion information of the target data to the qualified second terminals within the preset time and sends the matched target data to the second terminal when confirming to respond this request. It enables the second terminal to complete the data interaction. The server matches the related information submitted by the first terminal and the second terminal. On one hand, the efficiency of the server can be improved; on the other hand, the second terminal can transfer the target data through the Object Credit Certificate to improve the safety of the data transmission.

[42] Further, the target data may be the product information, digital, audio data, video data, program data or fund data in the financial field etc. If the target data is the product information, the first terminal should be the buyer, the server should be the server of the electronic commerce platform, the second terminal should be the seller.

[43] Please refer to Figure 2, Figure 2 is a schematic flow chart of a data interaction processing method applied by the first example of the present invention; The executive body of this example is the server. The data interaction processing method in this example includes the following steps:

[44] Step 201: the server receives the promotion information of the target data and the preset time of posting the promotion information and the interaction request of the target data.

[45] Thereinto, the required information of the target data comprises the identification information of the target data at least. To improve the accuracy of matching data, the required information of the target data also includes at least one of the information of specification and description.

[46] Step 202: the server searches the second terminal matching with the promotion information according to the required information.

[47] When receiving this interaction request, the server searches the second terminal matching with the promotion information wherein the local database according to the promotion information and sends the request of the target data to the searched second terminal at the preset time.

[48] The data wherein the local database of the server is uploaded and stored by the second terminal in advance.

[49] Step 203: the server sends the receiving request of the target data to eh searched second terminal within the preset time.

[50] The server sends the receiving request of the target data to the searched second terminal within the preset time after searching out the second terminal matching with the promotion information of the target data sent by the first terminal.

[51] For example, when the preset time of posting the promotion information is set at 09:30, the server searches the second terminal matching with the promotion information of target data sent by the first terminal, once the actual time is at 09:30, the server sends the request of the target data sent by the first terminal to the searched second terminal.

[52] Thereinto, the time of server is synchro with the standard time.

[53] The server also can send the related information of the first terminal to the second terminal, for example, contact information, location information etc.

[54] This request is used to identify whether the request can be responded after the second terminal receiving the request. The second terminal sends the response information to the server when confirming to respond this request. Thereinto, the response information can include the identification tag of the target data sent by the first terminal.

[55] Step 204: the server sends the target data to the second terminal when receiving the response information sent by the second terminal for responding the request.

[56] The server receives the response information sent by the second terminal and acquires the target data matching with the identification tag of the response information, sends the target data to the second terminal sending the response information. The second terminal receives the target data sent

by the server and confirms to interact the target data according to the target data. When confirming to accept this target data, the transaction order can be generated according to the target data. When confirming not to accept this Object Credit Certificate, this target data can be refused.

[57] Further, after the Step 204, the first terminal may receive the generated value-added data, which is generated by the target data's provider for providing the added interacting target data to the data unit of the first terminal.

[58] In the solution above, the server receives the promotion information of the target data and the preset time of posting the promotion information sent by the first terminal; send the promotion information of the target data to the qualified second terminals within the preset time, send the matched target data to the second terminal when confirming to respond this request. It enables the second terminal to complete the data interaction. The server matches the related information submitted by the first terminal and the second terminal. On one hand, the efficiency of the server can be improved; on the other hand, the second terminal can transfer the target data through the Object Credit Certificate to improve the safety of the data transmission.

[59] Please refer to Figure 3, Figure 3 is a schematic flow chart of a data interaction processing method applied by the second example of the present invention; the executive body of this example is the second terminal; the data interaction processing method in this example includes the following steps:

[60] Step 301: the second terminal receives the interaction request of the target data sent by the server; thereinto, the interaction request refers to the promotion information of the target data and the preset time of posting the promotion information and the interaction request of the target data, the interaction request includes the promotion information as well.

[61] The server searches the second terminal matching with the promotion information according to the required information when receiving the promotion information of the target data and the preset time of posting the promotion information and the interaction request of the target data.

[62] When the server posting the receiving request of the target data within the preset time, the second terminal receives the request sent by the server.

[63] Step302: the server sends the response information to the server when confirming to respond the request according to the promotion information of the request.

[64] The second terminal receives the request sent by the server and confirms to respond this request depending on the promotion information of the request. For example, if the corresponding target

data of the promotion information is the second terminal's own matched target data, the second terminal confirms to respond this request. Then, the second terminal sends the response information to the server. Thereinto, the response information also includes the identification tag with the target data which is corresponding to the promotion information and the second terminal's own target data.

[65] Step 303: the second terminal receives the target data sent by the server for responding the response information.

[66] For example, when the second terminal receiving the target data sent by the server, the transaction order is generated according to the target data.

[67] Further, after the Step 303, the second terminal may receive the generated value-added data, which is generated by the target data's provider for providing the added interacting target data to the data unit of the second terminal.

[68] Further, this target data is an Object Credit Certificate or acquisition method information of an Object Credit Certificate.

[69] In the solution above, the second terminal receives the request of the promotion information of the target data sent by the server within the preset time and sends the response information to the server when confirming to respond. It enables the server to send the target data when receiving the response information sent by the second terminal to complete the data interaction of the target data.

[70] Please refer to Figure 4, Figure 4 is a schematic structural diagram of a data interaction processing device applied by an example of the present invention; in this example, every module wherein the data interaction processing device is used to execute all the steps of the Figure 2, please refer to Figure 2 and the example of Figure 2 in details. The data interaction processing device is corresponding to the executive body of this example of the Figure 2 is the server, the server can be a server. The data interaction processing device in this example includes a receiving module 410, a query module 420, a requesting module 430 and an interacting module 440.

[71] The receiving module 410 is used to receives the promotion information of the target data and the preset time of posting the promotion information and the interaction request of the target data.

[72] The query module 420 is used to search the second terminal matching with the promotion Information according to the required information received by the receiving module 410.

[73] The requesting module 430 is used to send the request of the target data to the searched second terminal searched by the query module 420 within the preset time.

[74] The interacting module 530 is used to send the target data to the second terminal when receiving the response information sent by the second terminal for responding the request.

[75] Thereinto, this target data is an Object Credit Certificate or acquisition method information of an Object Credit Certificate.

[76] In the solution above, the server receives the promotion information of the target data and the preset time of posting the promotion information sent by the first terminal; send the promotion information of the target data to the qualified second terminals within the preset time, send the matched target data to the second terminal when confirming to respond this request. It enables the second terminal to complete the data interaction. The server matches the related information submitted by the first terminal and the second terminal. On one hand, the efficiency of the server can be improved; on the other hand, the second terminal can transfer the target data through the Object Credit Certificate to improve the safety of the data transmission.

[77] Please refer to Figure 5, Figure 5 is a schematic structural diagram of a data interaction processing device applied by the second example of the present invention. In this example, every module wherein the data interaction processing device is used to execute all the steps of the Figure 4, please refer to Figure 3 and the example of Figure 3 in details. The data interaction processing device is corresponding to the executive body of this example of the Figure 3 is the server, the server can be a server. The data interaction processing device in this example includes a receiving module 510, a confirming module 520 and an interacting module 530.

[78] The receiving module 510 is used to receive receives the interaction request of the target data sent by the server; thereinto, the interaction request refers to the promotion information of the target data and the preset time of posting the promotion information and the interaction request of the target data, the interaction request includes the promotion information as well.

[79] The confirming module 520 is used to send the response information to the server when confirming to respond the request according to the promotion information of the request received by the receiving module 510.

[80] The interacting module 530 is used to receive the target data sent by the server for responding the response information.

[81] In the solution above, the second terminal receives the request of the promotion information of the target data sent by the server within the preset time and sends the response information to the server when confirming to respond. It enables the server to send the target data when receiving the

response information sent by the second terminal to complete the data interaction of the target data.

[82] The foregoing descriptions are merely preferred examples of the present invention but not limited to the present invention. Any modification, equivalent replacement, and improvement made within the spirit and principle of the present invention shall be included in the protection of the present invention.

The Claims

[CLAIM 1] A method of data interaction processing, characterized in the method, comprises:
the server receives the promotion information of the target data and the preset time of posting the promotion information and the interaction request of the target data; and
search the second terminal matching with the promotion information; and
send the receiving request of target data to the searched second terminal within the preset time; and
send the target data to the second terminal when responding the request.

[CLAIM 2] The method according to claim 1, characterized in the method, wherein this target data is an Object Credit Certificate or an acquisition method information of an Object Credit Certificate.

[CLAIM 3] A method of data interaction processing, characterized in the method, comprises:
the second terminal receives the receiving request of the target data sent by the server; thereinto, the interaction request refers to the promotion information of the target data and the preset time of posting the promotion information and the interaction request of the target data, the interaction request includes the promotion information as well; and
send the response information to the server when confirming to respond the request according to the promotion information; and
receive the target data sent by the server for responding the request.

[CLAIM 4] The method according to claim 3, characterized in the method, wherein after receiving the target data sent by the server for responding the request,
the second terminal generates the transaction order according to the target data.

[CLAIM 5] The method according to claim 4, characterized in the method, wherein after generating the transaction order according to the target data,
the first terminal receives the generated value-added data from the provider of the target data.

[CLAIM 6] The method according to claim 3, characterized in the method, wherein this target data is an Object Credit Certificate or an acquisition method information of an Object Credit Certificate.

[CLAIM 7] A device of data interaction processing, characterized in the device, comprises a receiving module, a query module, a requesting module and an interacting module;
the receiving module is used to receive the promotion information of the target data sent by the first terminal, the preset time of posting the promotion information and the interaction request of the target data; and
the query module is used to search the second terminal matching with the promotion information according to the required information; and
the requesting module is used to send the receiving request of target data to the searched second terminal within the preset time; and
the interacting module is used to send the target data to the second terminal when responding the request.

[CLAIM 8] The method according to claim 7, characterized in the method, wherein this target data is an Object Credit Certificate or an acquisition method information of an Object Credit Certificate.

[CLAIM 9] A device of data interaction processing, characterized in the device, comprises a receiving module, a confirming module and an interacting module;
the receiving module is used to receive the receiving request of the target data sent by the server; thereinto, the interaction request refers to the promotion information of the target data and the preset time of posting the promotion information and the interaction request of the target data, the interaction request includes the promotion information as well; and
the confirming module is used to send the response information to the server when confirming to respond the request according to the promotion information; and
the interacting module is used to receive the target data sent by the server for responding the request.

[CLAIM 10] A system of data interaction processing, characterized in the system, comprises the first terminal, the server and the second terminal,

the first terminal is used to send the promotion information of the target data and the preset time of posting the promotion information and the interaction request of the target data; and

the server is used to receive the interaction request, and search the second terminal matching with the promotion information, and send the receiving request of target data to the searched second terminal within the preset time; and

the second terminal is used to send the response information to the server when confirming to respond the request; and

the server is also used to send the target data to the second terminal when receiving the response information; and

the second terminal is also used to receive the target data sent by the server for responding the request.

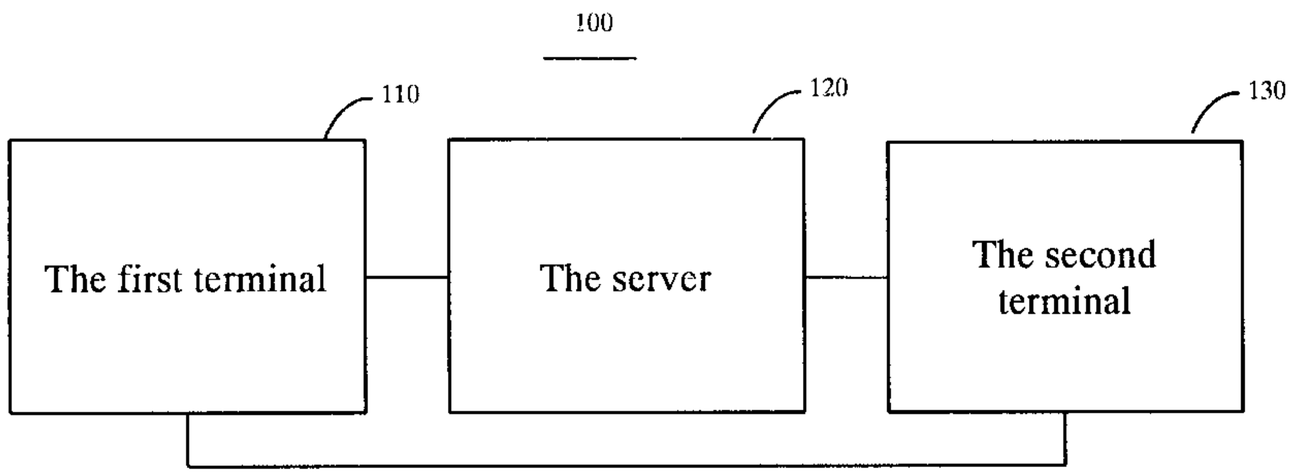

Figure 1

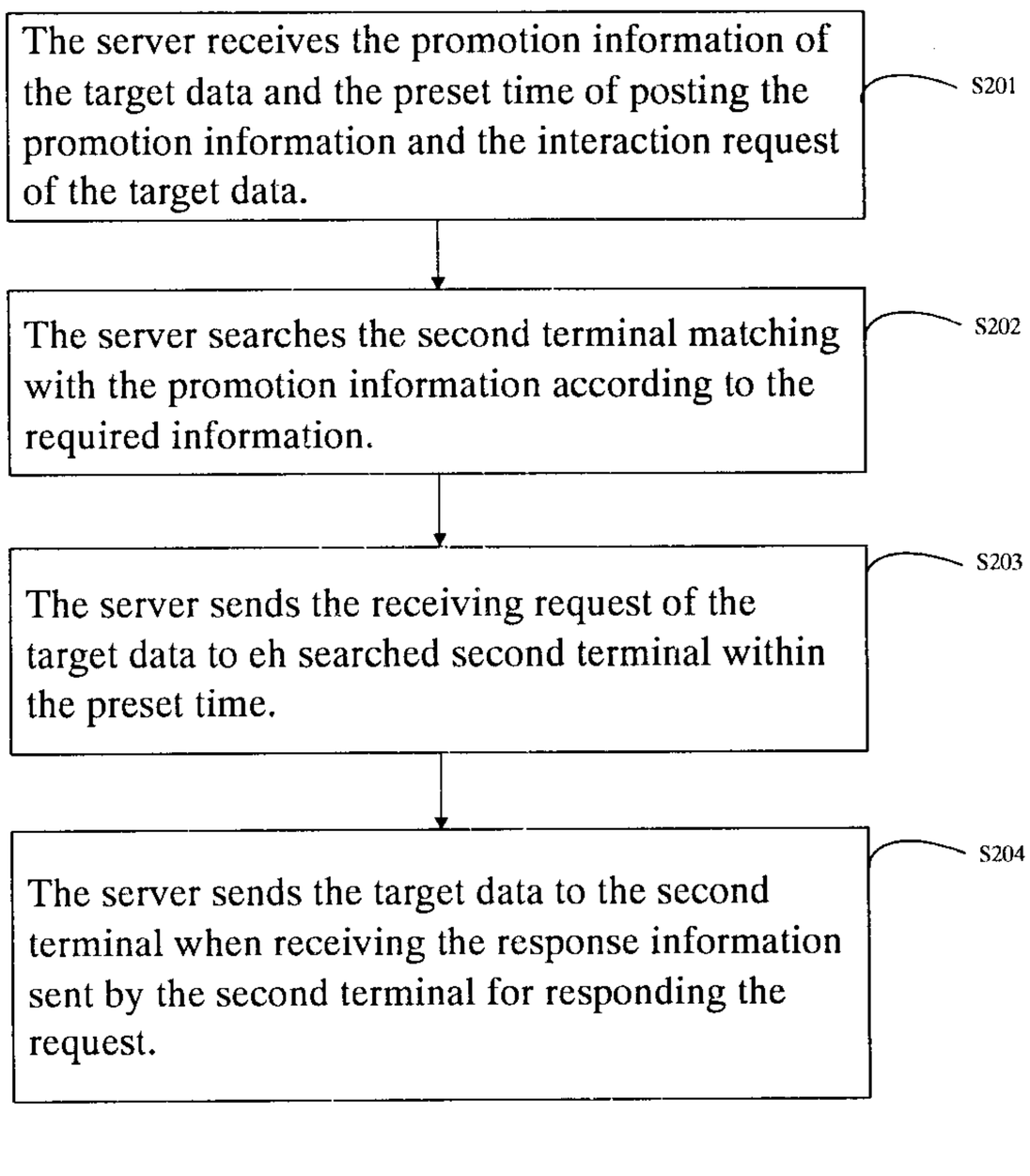

Figure 2

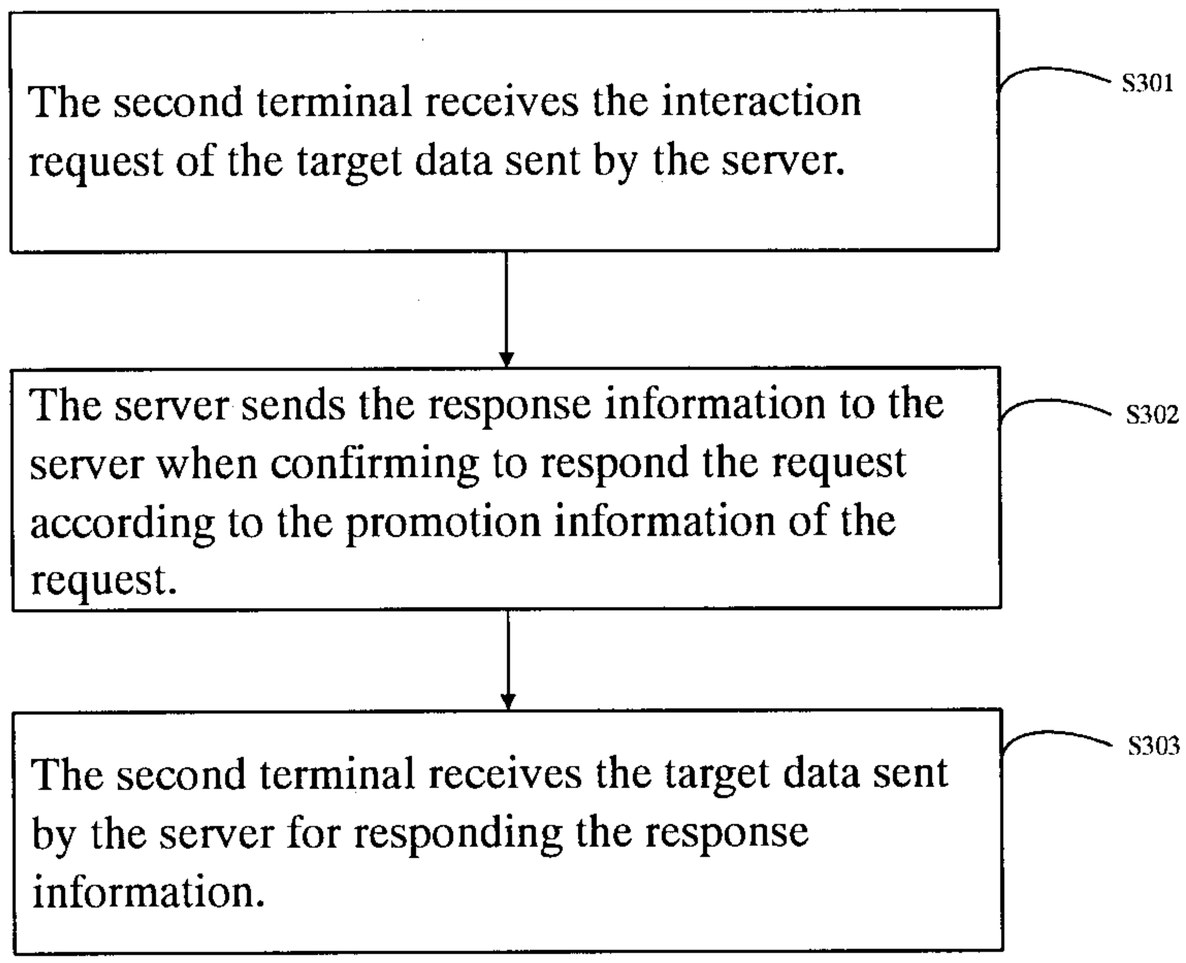

Figure 3

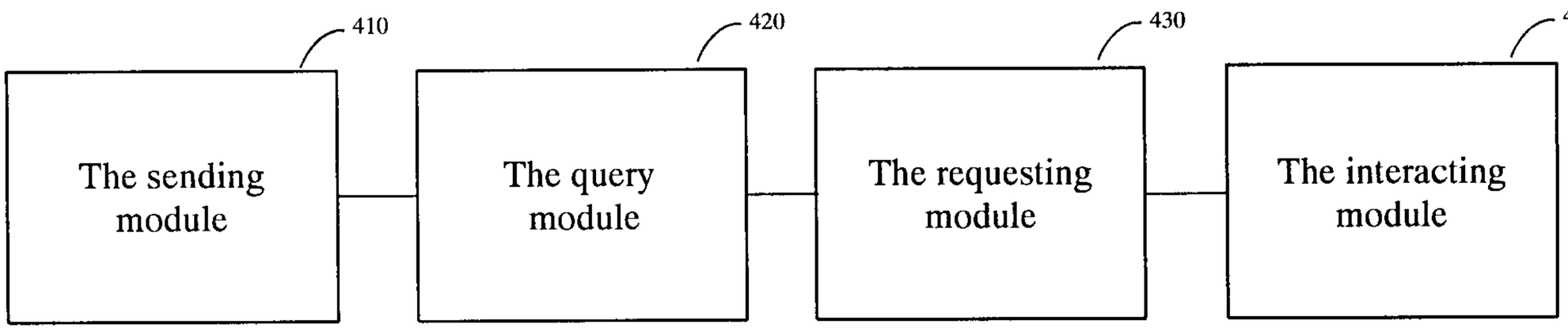

Figure 4

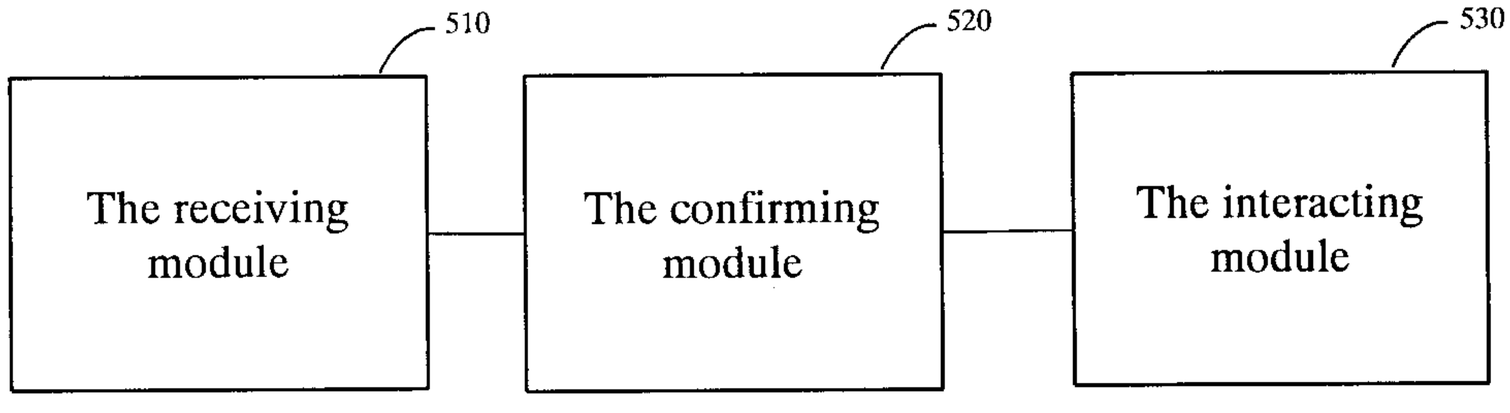

Figure 5

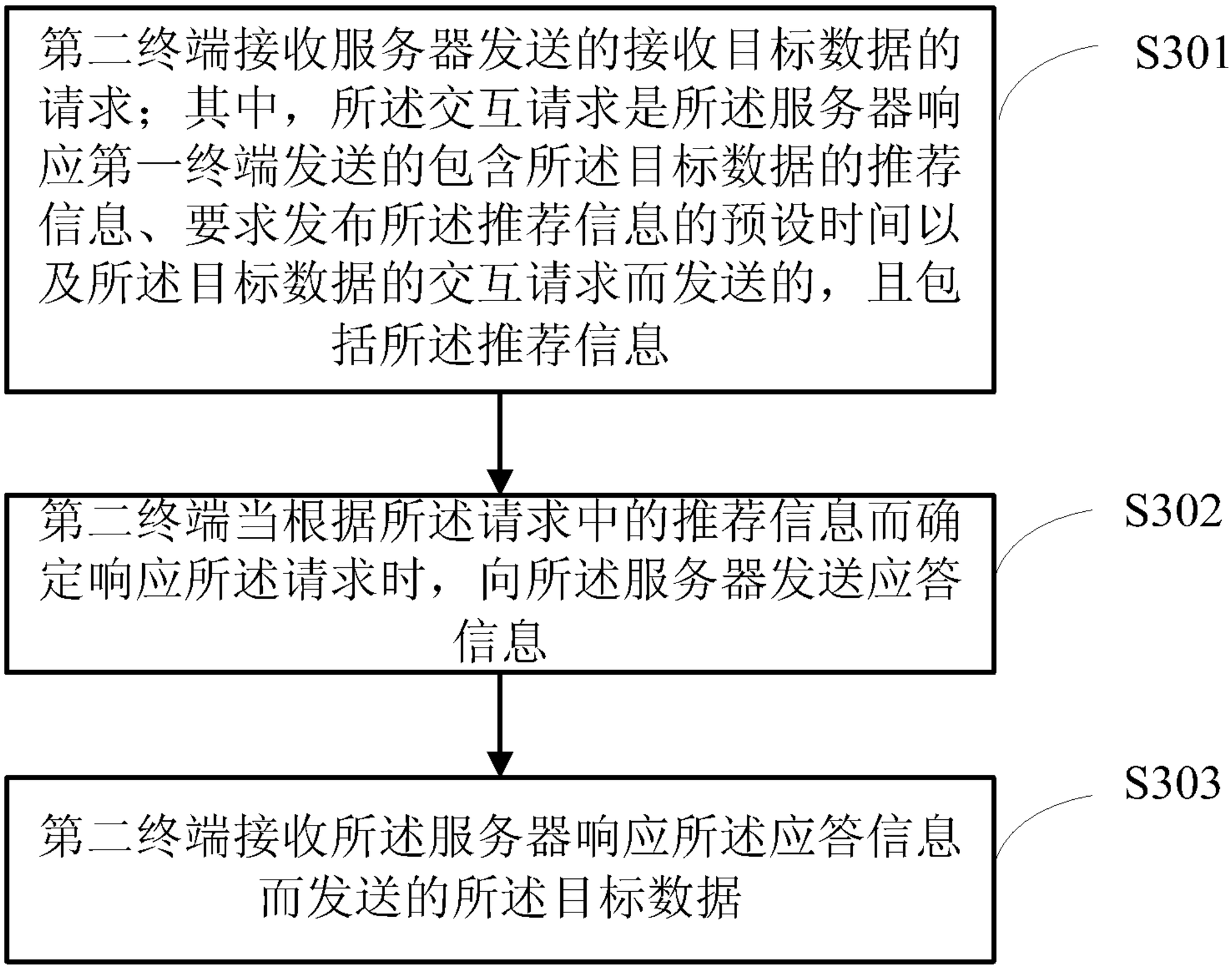

图 3

S301 SECOND TERMINAL RECEIVES REQUEST FOR RECEIVING TARGET DATA, INTERACTION REQUEST BEING SENT BY SERVER IN RESPONSE TO INTERACTION REQUEST SENT BY FIRST TERMINAL AND INCLUDING TARGET DATA RECOMMENDATION INFORMATION, PRESET TIME FOR RELEASING RECOMMENDATION INFORMATION AND TARGET DATA, AND COMPRISING RECOMMENDATION INFORMATION

S302 UPON DETERMINING ACCORDING TO RECOMMENDATION INFORMATION WITHIN REQUEST TO RESPOND TO REQUEST, SECOND TERMINAL SENDS REPLY INFORMATION TO SERVER

S303 SECOND TERMINAL RECEIVES TARGET DATA SENT BY SERVER IN RESPONSE TO REPLY INFORMATION