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(54) **Title:** AN AUTOMATIC MESSAGE DELIVERY TO A MOBILE PHONE

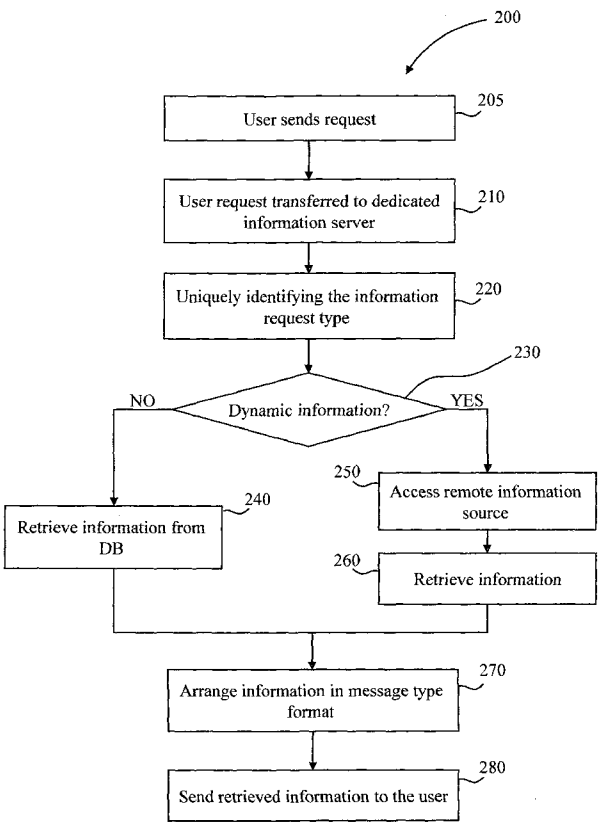

Fig. 2

(57) **Abstract:** A method for retrieving information through a mobile device, the method including the steps of: sending a request for said information from said mobile device to a designated number of a dedicated information server; uniquely identifying the information request type; retrieving said requested information by said dedicated information server; and sending said requested information from said dedicated information server to said mobile device.

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AN AUTOMATIC MESSAGE DELIVERY TO A MOBILE PHONE

CROSS REFERENCE TO RELATED APPLICATIONS

This application claims the benefit from US provisional application 60/996,717 filed Dec 3rd, 2007, the disclosure of which is included herein by reference.

FIELD OF THE INVENTION

The present invention relates in general to the field of mobile phones, and more particularly the present invention relates to systems and methods for automating the delivery of messages to mobile phones.

BACKGROUND AND PRIOR ART

A variety of applications, in particular applications where classified information in involved, obtaining such information using SMS (Short Message Service) or MMS (Multimedia Messaging Service) messaging system is often cumbersome and time consuming.

One such application is obtaining stock quotes using a line phone or mobile phone. One prior art method is using the internet, entering a certain internet site and sending an SMS message containing the stock decoded number (or another code type) and the specific stock quote is returned in a returning SMS message. When an entire stock portfolio is involved, this method is highly inefficient.

Another such application is obtaining medical information in emergency situations. Often, the emergency crew must obtain medical information on the patient in a very short time, in particular for patients that are not able to communicate. Some patients, such as diabetic patients, carry some information related to their known illness in their wallet and/or a number of an emergency center where the needed information can be obtained. Sometimes, an emergency crew member searches through the patient's mobile phone to find a relative that can help provide to needed information.

There is therefore a need and it would be advantageous to have a system and service that can promptly provide information to a user that sends a request the system, which will identify the request and automatically send back the needed information.

Any publications, including patents, patent applications and articles, referenced or mentioned in this specification are herein incorporated in their entirety into the specification, to the same extent as if each individual publication was specifically and individually indicated to be incorporated herein. In addition, citation or identification of any reference in the description of some embodiments of the invention shall not be construed as an admission that such reference is available as prior art to the present invention.

SUMMARY OF THE INVENTION

According to the teachings of the present invention, there is provided a method for retrieving information through a mobile device, the method comprising the steps of:

a) sending a request for the information from the mobile device to a designated number of a dedicated information server;

b) uniquely identifying the information request type;

c) retrieving the requested information by the dedicated information server; and

d) sending the requested information from the dedicated information server to the mobile device.

In some embodiments of the present invention, the request includes at least one predefined code uniquely identifying the information request type of the requested information; and wherein the dedicated information server analyzes the code to identify the information request type and retrieves the requested information.

In some embodiments of the present invention, the request is sent by placing a call to the designated number. The caller identification (CID) number of the mobile device is used to uniquely identify the information request type. The retrieval of the requested information is performed in accordance with the information request type and predefined specifications.

In some embodiments of the present invention, the request is sent by placing a un established call to the designated number; wherein the CID number of the mobile device is used to uniquely identify the information request type. The retrieval of the requested information is performed in accordance with the information request type and predefined specifications.

In some embodiments of the present invention, the request is sent via an SMS message to the designated number; wherein the CID number of the mobile device is used to uniquely identify the information request type. The retrieval of the requested information is performed in accordance with the information request type and predefined specifications.

In some embodiments of the present invention, the request is sent by placing a call to the designated number, which is allocated to one or more users. The designated number is used to uniquely identify the information request type. The retrieval of the requested information is performed in accordance with the information request type and predefined specifications.

In some embodiments of the present invention, the requested information is retrieved from a database operatively connected to the dedicated information server.

In some embodiments of the present invention, the requested information is retrieved by the dedicated information server from a remote site.

An embodiment is an example or implementation of the inventions. The various appearances of "one embodiment," "an embodiment" or "some embodiments" do not necessarily all refer to the same embodiments. Although various features of the invention may be described in the context of a single embodiment, the features may also be provided separately or in any suitable combination. Conversely, although the invention may be described herein in the context of separate embodiments for clarity, the invention may also be implemented in a single embodiment.

Reference in the specification to "one embodiment", "an embodiment", "some embodiments" or "other embodiments" means that a particular feature, structure, or characteristic described in connection with the embodiments is included in at least one embodiments, but not necessarily all embodiments, of the inventions. It is understood that the phraseology and terminology employed herein is not to be construed as limiting and are for descriptive purpose only.

It is to be understood that the terms “including”, “comprising”, “consisting” and grammatical variants thereof do not preclude the addition of one or more components, features, steps, or integers or groups thereof and that the terms are to be construed as specifying components, features, steps or integers. The phrase "consisting essentially of", and grammatical variants thereof, when used herein is not to be construed as

excluding additional components, steps, features, integers or groups thereof but rather that the additional features, integers, steps, components or groups thereof do not materially alter the basic and novel characteristics of the claimed composition, device or method.

If the specification or claims refer to "an additional" element, that does not preclude there being more than one of the additional element. It is to be understood that where the claims or specification refer to "a" or "an" element, such reference is not be construed that there is only one of that element. It is to be understood that where the specification states that a component, feature, structure, or characteristic "may", "might", "can" or "could" be included, that particular component, feature, structure, or characteristic is not required to be included.

BRIEF DESCRIPTION OF THE DRAWINGS

The subject matter regarded as the invention will become more clearly understood in light of the ensuing description of embodiments herein, given by way of example and for purposes of illustrative discussion of the present invention only, with reference to the accompanying drawings, wherein:

Figure 1 is a schematic illustrating of the principal components of the present invention; and

Figure 2 is a flowchart illustrating the disclosed method in accordance with embodiments of the present invention.

The drawings together with the description make apparent to those skilled in the art how the invention may be embodied in practice.

No attempt is made to show structural details of the invention in more detail than is necessary for a fundamental understanding of the invention.

It will be appreciated that for simplicity and clarity of illustration, elements shown in the figures have not necessarily been drawn to scale. For example, the dimensions of some of the elements may be exaggerated relative to other elements for clarity. Further, where considered appropriate, reference numerals may be repeated among the figures to indicate corresponding or analogous elements.

Methods of the present invention may be implemented by performing or completing manually, automatically, or a combination thereof, selected steps or tasks. The term "method" refers to manners, means, techniques and procedures for accomplishing a given task including, but not limited to, those manners, means, techniques and procedures either known to, or readily developed from known manners, means, techniques and procedures by practitioners of the art to which the invention belongs. The descriptions, examples, methods and materials presented in the claims and the specification are not to be construed as limiting but rather as illustrative only.

DESCRIPTION OF EMBODIMENTS OF THE INVENTION

Before explaining embodiments of the invention in detail, it is to be understood that the invention is not limited in its application to the details of construction and the arrangement of the components set forth in the host description or illustrated in the drawings.

Unless otherwise defined, all technical and scientific terms used herein have the same meaning as commonly understood by one of ordinary skill in the art to which the invention belongs. The methods and examples provided herein are illustrative only and not intended to be limiting.

Where applicable, although state diagrams, flow diagrams or both may be used to describe embodiments, the invention is not limited to those diagrams or to the corresponding descriptions. For example, flow need not move through each illustrated box or state, or in exactly the same order as illustrated and described.

A principle intention of the present invention includes providing a system, method and service that can promptly provide information to a user that sends a request the system, which will identify the request and automatically send back the needed information.

According to embodiments of the present invention users may define any type of service they wish to receive using the proposed system and method. For instance, a user which suffers from a medical condition which may leave him or her in need of urgent medical care may request that essential details about their medical condition will be sent to their mobile phone whenever requested. Thus, provided users are in a condition where they cannot provide the necessary information about their medical

condition, medical staff or other people around them may retrieve this information from their mobile phones. Users may also define that their contact information may be sent to the mobile device whenever requested. Thus, if their mobile phone is misplaced, this information may be retrieved by whoever finds the mobile phone. According to yet another example, users may define that they wish to receive updated information. For instance, users may define that they wish to receive certain stock quotes to their mobile phone when requested by sending a message or calling a designated number to the service. The requested information is typically sent to the user as an SMS or MMS message. The requested information can also be sent as an Email or any other messaging system. The invention will now be described in terms of the requested information being sent to the user as an SMS message, but with no limitation on the requested information being sent to the user in any other type of electronic message.

Figure 1 is a schematic illustrating of the principal components of the present invention. The user sends a request for the information from mobile device **100**. Mobile device **100** may be any type of mobile communication means capable of receiving any phone message type. For instance, mobile device **100** can optionally be embodied, without limitations, by a cellular telephone, by a wireless telephone, by a Personal Communication System (PCS) device, by a Personal Digital Assistant (PDA) device that incorporates a wireless communication device. The request is sent from mobile device **100** of the user, through mobile network **110** to the messaging server **120** of the phone network provider. For instance, the messaging server **120** may be a SMS server or by placing a call to a designated number.

The request is transferred from messaging server **120** to a dedicated information server **130**. The dedicated information server **130** holds all information concerning the users of the system and predetermined corresponding requests as defined by the users. Provided that the information requested by a user is predetermined, the information is stored on local database **135** on information server **130**. The request for information requested sent by the user is defined as "predetermined", when the information requested by the user is stored on local database **135**. When the information requested by the user is not stored on local database **135**, the request sent by the user is defined as "dynamic".

When a request for information arrives, information server **130** retrieves the relevant information from database **135**, provided that the information requested by the

user is predetermined. Provided that the information requested by the user is dynamic, dedicated information server **130** may retrieve the requested information from a remote server **150** or a web page **160** through information network **140**. The information network may be any type of data communication network, such as the internet. Once the requested information is retrieved, the requested information is arranged in an appropriate message type format and is sent back to mobile device **100**. The information may be sent directly from dedicated information server **130** to mobile device **100** through wireless network **110**.

According to embodiments of the present invention the method for requesting for the information may be establish using any type of communication means at the disposal of mobile device **100**. For instance, the user may request the information by sending a SMS message from mobile device **100**. Alternatively, the user may request the information by placing a call to the service, or by calling the service and immediately hanging up. Optionally, the service call is programmed to be a non response service, identifying each incoming call and hence, not requiring to hang up the call.

The user may define that he or she is interested in receiving only one type of information. The requested information may be predetermined or dynamic. Accordingly, any connection the user establishes with the system results in the retrieval of the requested information. According to other embodiments of the present invention when requesting the information the user may indicate which type of information he or she wishes to receive. For instance, the user may send the system an SMS message containing a keyword or a code which indicate which type of information is requested. The user may, for example send an SMS message with the word "quotes" to request information about stock quote rates, or send a SMS message with the word "medical" to receive medical information, or send a SMS message with the word "balance" to receive bank balance information.

Figure 2 is a flowchart illustrating of disclosed method **200**, in accordance with embodiments of the present invention. The user initiates procedure **200** by sending a request for information (step **205**). The user request is transferred to the dedicated information server through the mobile communication means (step **210**). The dedicated server analyzes the request and identifies which type of information the user requests (step **220**). According to one embodiment, the user may send a keyword or a code for indicating which type of information he or she wishes to receive. According to other

embodiments of the present invention, upon registration users may specify that they wish to receive only one type of information. In such cases, the keyword or the code are automatically embedded into the request sent by the user.

According to another embodiment of the present invention, a user may place calls for designated numbers to receive particular information. Users may establish the connection, immediately hang up, and receive the requested information in a message. For instance, users may call *9111 to receive emergency information or call *9222 to receive stock quotes. The type and content of the requested information may be determined in accordance with the caller identification (CID) of the mobile device of the user or the designated number which was allocated for one or more users, or a combination of thereof.

At the next step method **200** checks whether the requested information is dynamic or predetermined (step **230**). As mentioned above, predetermined information is stored on a local database while dynamic information is retrieved from a remote source. The remote source may be a remote database, a remote server or a website. If the requested information is predetermined, it is retrieved from the local database (step **240**). Provided that the requested information is dynamic, the dedicated server gains access to the remote information source (step **250**) and retrieves the information from the remote information source (step **260**).

The dedicated server arranges the retrieved information to suit the format of the message type that can be sent to the user (step **270**). For instance, provided that the user determines that he or she wishes to receive the response in a SMS message, the information is transformed into a text only format and condensed to a short message to suit a SMS message. Finally, the dedicated server sends the message with the retrieved information to the user (step **280**).

While the invention has been described with respect to a limited number of embodiments, these should not be construed as limitations on the scope of the invention, but rather as exemplifications of some of the embodiments. Those skilled in the art will envision other possible variations, modifications, and applications that are also within the scope of the invention. Accordingly, the scope of the invention should not be limited by what has thus far been described, but by the appended claims and their legal equivalents. Therefore, it is to be understood that alternatives, modifications, and variations of the present invention are to be construed as being within the scope and spirit of the appended claims.

WHAT IS CLAIMED IS:

1. A method for retrieving information through a mobile device, said method comprising the steps of:

a) sending a request for said information from said mobile device to a designated number of a dedicated information server;
b) uniquely identifying the information request type;
c) retrieving said requested information by said dedicated information server; and
d) sending said requested information from said dedicated information server to said mobile device.

2. The method for retrieving information through a mobile device as in claim 1, wherein said request includes at least one predefined code uniquely identifying the information request type of said requested information; and wherein said dedicated information server analyzes said code to identify the information request type before retrieving said requested information.

3. The method for retrieving information through a mobile device as in claim 1, wherein said request is sent by placing a call to said designated number; wherein the caller identification (CID) number of said mobile device is used to uniquely identify said information request type; and wherein said retrieval of said requested information is performed in accordance with said information request type and predefined specifications.

4. The method for retrieving information through a mobile device as in claim 1, wherein said request is sent by placing an un established call to said designated number; wherein the CID number of said mobile device is used to uniquely identify said information request type; and wherein said retrieval of said requested information is performed in accordance with said information request type and predefined specifications.

5. The method for retrieving information through a mobile device as in claim 1, wherein said request is sent via an SMS message to said designated number; wherein the CID number of said mobile device is used to uniquely identify said information request type; and wherein said retrieval of said requested information is performed in accordance with said information request type and predefined specifications.

6. The method for retrieving information through a mobile device as in claim 1, wherein said request is sent by placing a call to said designated number; wherein said designated number is allocated to one or more users; wherein said designated number is used to uniquely identify said information request type; and wherein said retrieval of said requested information is performed in accordance with said information request type and predefined specifications.

7. The method for retrieving information through a mobile device as in claim 1, wherein said requested information is retrieved from a database operatively connected to said dedicated information server.

8. The method for retrieving information through a mobile device as in claim 1, wherein said requested information is retrieved by said dedicated information server from a remote site.

9. A system configured to perform method operations for retrieving information through a mobile device, the system comprising:
a processor and associated storage, said processor and associated storage are configured to perform at least the following:

a) sending a request for said information from said mobile device to a designated number of a dedicated information server;
b) uniquely identifying the information request type;
c) retrieving said requested information by said dedicated information server; and
d) sending said requested information from said dedicated information server to said mobile device.

10. A program storage device readable by machine, tangibly embodying a program of instructions executable by the machine to perform method operations for retrieving information through a mobile device, comprising:

a) sending a request for said information from said mobile device to a designated number of a dedicated information server;
b) uniquely identifying the information request type;
c) retrieving said requested information by said dedicated information server; and
d) sending said requested information from said dedicated information server to said mobile device.

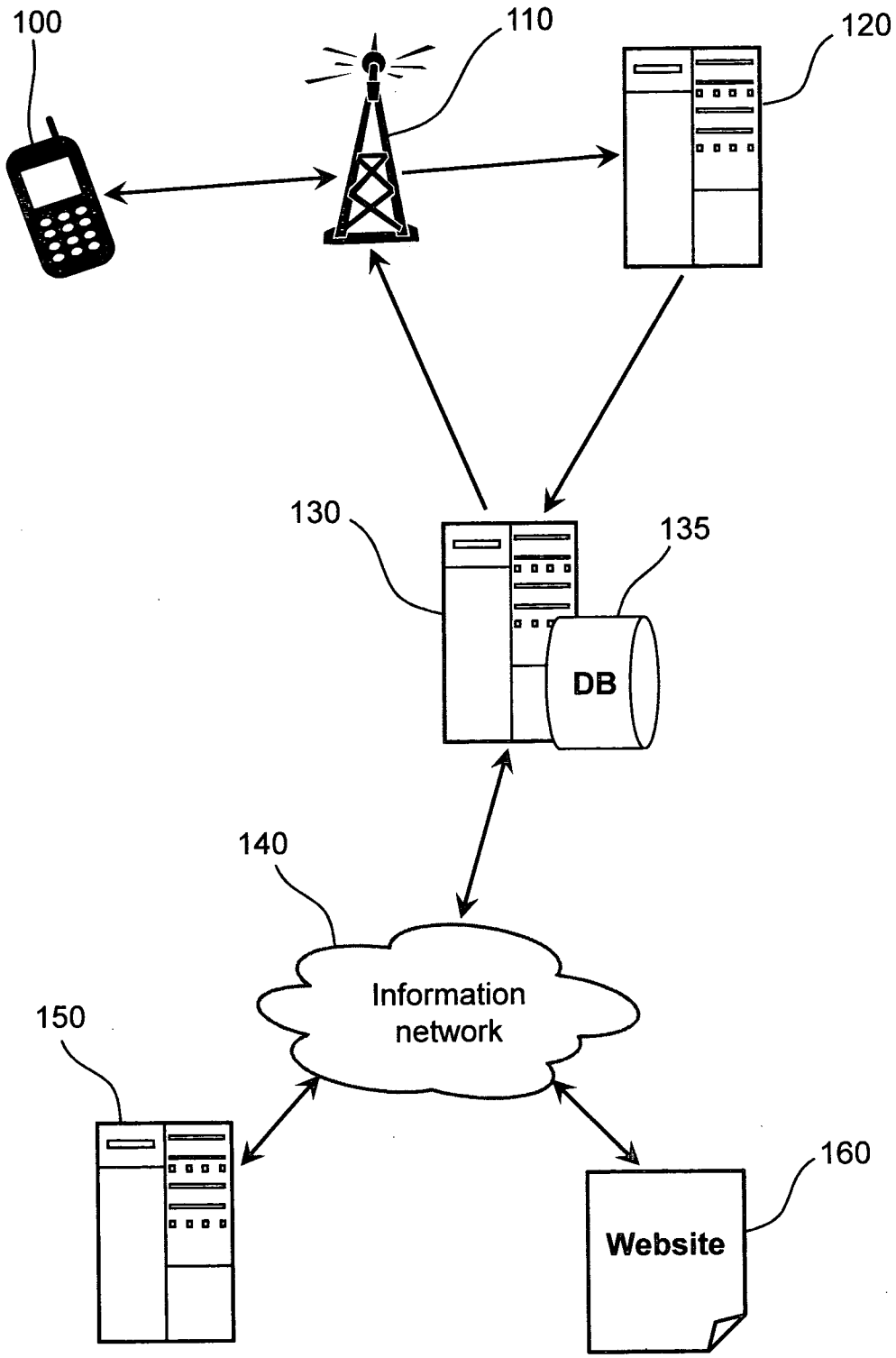
100
110
120
130
135
DB
140
Information network
150
160
Website

Fig. 1

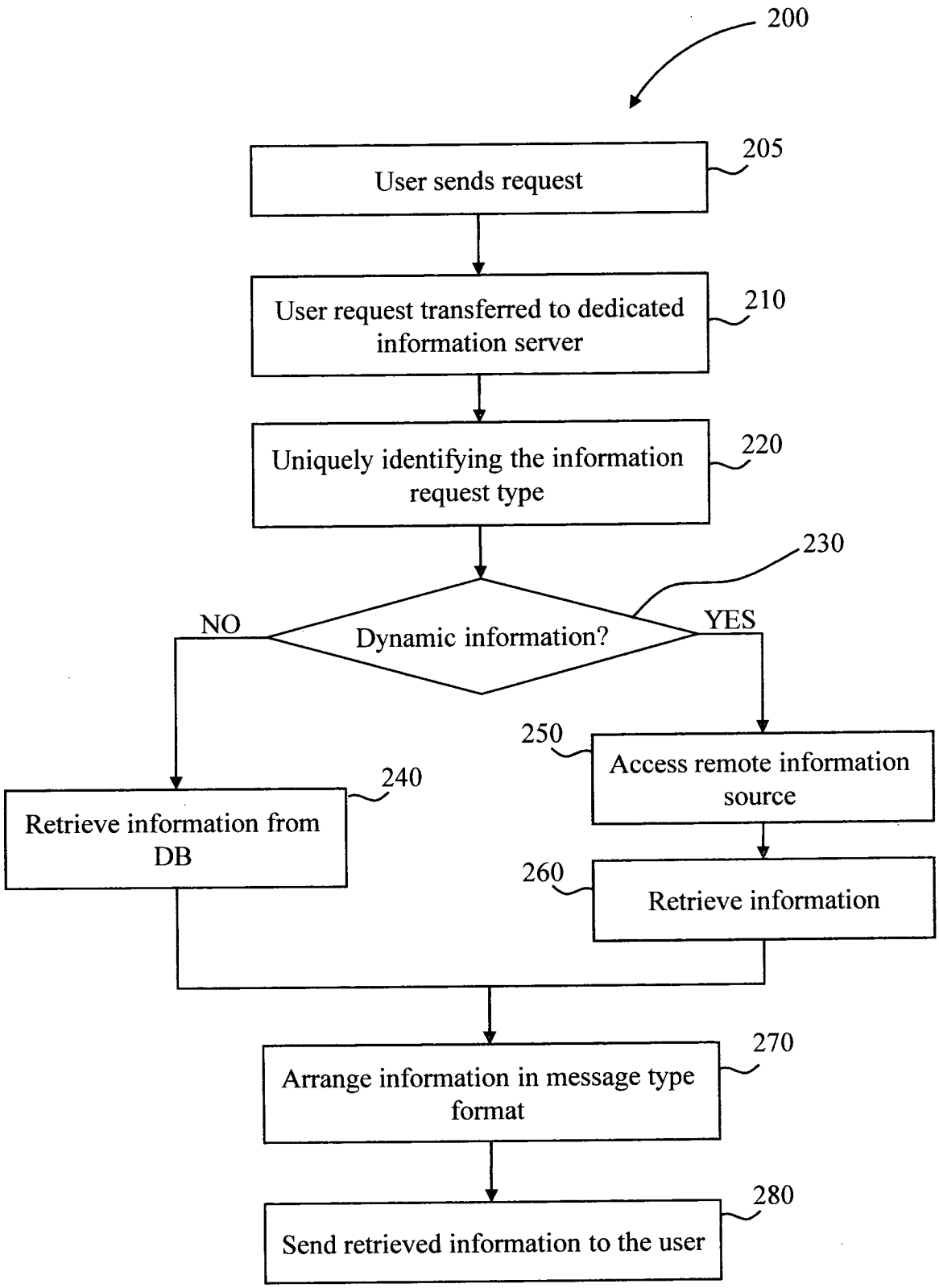
200
User sends request
205
User request transferred to dedicated information server
210
Uniquely identifying the information request type
220
Dynamic information?
230
NO
YES
Retrieve information from DB
240
Access remote information source
250
Retrieve information
260
Arrange information in message type format
270
Send retrieved information to the user
280

Fig. 2