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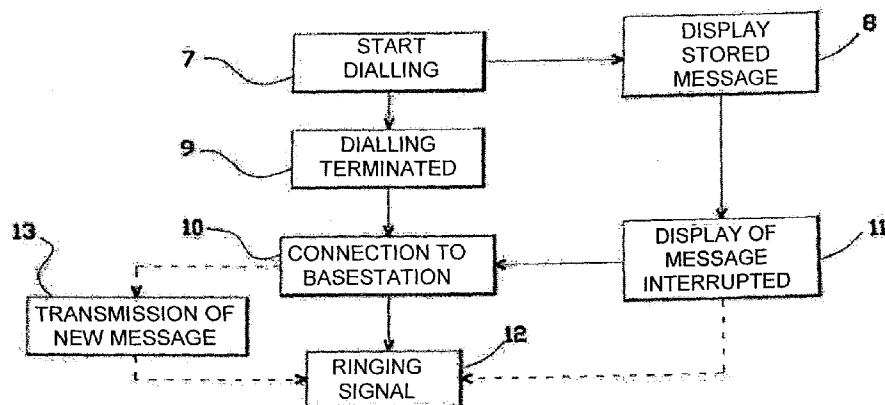
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(54) Title: METHOD FOR TRANSMISSION OF ADVERTISING MESSAGES TO MOBIL DEVICES IN ACCORDANCE TO
CALL SET UP



(57) Abstract: The present invention discloses a method for communication making use of a communication instrument comprising a display, such as a mobile telephone, IP telephony, PDA, Smartphone or another type of communication instrument. According to the invention, the time during a connection set-up phase to a utilized communication network is utilized for the display of a message, transmitted to the communication instrument and preferably of advertising character, on the display of the communication instrument, the display of said message being interrupted after accomplished connection set-up phase. In this connection, the displayed message may consist of a message transmitted to and stored into the communication instrument of the subscriber upon a previous connection to the utilized communication network. When the communication instrument already upon the initiation of a connection set-up phase establishes contact with the utilized communication network, a message can be transmitted substantially immediately for the display during the remaining part of the connection set-up phase, i.e., without any storage of the message being required.

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Method for transmission of advertising messages to mobil devices in accordance to call set up.

The present invention relates to a method for communication making use of a communication instrument comprising a display, such as a mobile telephone, IP telephone, PDA, Smartphone or another type of communication instrument.

With the purpose of reducing the costs associated with conducting a call, it is, in a telephone exchange, by, e.g., GB 2 344 020 A, previously known to utilize an auxiliary equipment, which is activated when a subscriber enters a telephone number of another subscriber, so that the calling subscriber obtains a verbal message of information or advertising character before ringing signals are obtained. In that connection, this message may also be obtained by a called subscriber. By the acceptance of such verbal advertising messages, the calling subscriber obtains a reduced or eliminated call charge. Variations of such a solution are also disclosed by, for instance, WO 98/36585, US 5 448 625 and US 5 539 809. A solution with repeated interruptions for verbal advertising messages in a call in progress between two subscribers is also disclosed by WO 91/06187 with the purpose of allowing calls completely free of charge, but implies that the calling subscriber initiates the call by calling a particular telephone number for calls free of charge and advertisement paid.

The present invention is intended to allow a reduced call charge, e.g., by the fact that an occurring fixed initial or opening charge for the connection is not charged or that another type of discount is given, besides which disturbing verbal messages to the calling and/or called party in connection with the initial part of a call and/or interruptions during calls for verbal advertising messages are also eliminated.

The method according to the present invention for communication making use of a communication instrument comprising a display, such as a mobile telephone, IP telephone, PDA, Smartphone or another type of communication instrument, is substantially characterized in that, during a connection set-up phase to a utilized communication network, a message, transmitted to the communication instrument and preferably of advertising character, is displayed on the display of the communication instrument, and that the display of said message is interrupted after accomplished connection set-up phase.

Examples of principal embodiments according to the invention will hereinafter be described in more detail, reference being made to the accompanying drawings, wherein:

Fig. 1 is a block diagram intended to demonstrate an example of an embodiment according to the invention to transmit and store a message in, e.g., a mobile telephone;

Fig. 2 is a flow chart utilizing a stored message that previously has been transmitted to a utilized communication instrument, e.g., such as is demonstrated in Fig. 1, as well as also indicating how an additional message possibly may be transmitted for storage in connection with a call set-up; and

Fig. 3 is a flow chart showing how a message can be transmitted to a calling communication instrument in

connection with calling being initiated, the message not consisting of a previously received and stored message.

According to the present invention, the display available in mobile telephones, IP telephones and telephone instruments of another type is utilized, in connection with calling another subscriber, to display a message of advertisement character, e.g., "This call is sponsored by Volvo". When entering a desired telephone number, a previously received and stored message may, in this connection, be utilized for this purpose (Fig. 1), but it is also within the scope of the invention that such a message is transmitted to the calling telephone in connection with communication networks in which a first connection set-up phase is initiated in connection with an input of the desired subscriber number being started (Fig. 3) by the calling subscriber.

As already mentioned above, the present invention may be applied in different types of networks, such as a mobile telephone networks, IP telephony and other telephony systems that allow the possibility of transmitting visual information. Thus, the expression "telephony systems" also relates to different types of systems for data transmission, in which a subscriber may make connections via a data-transmitting network, e.g., for transmission/receipt of e-mail or other information. However, with the purpose of simplifying and clarifying examples of embodiments within the scope of the general idea of the invention, the subsequent description will refer to "telephony systems".

Fig. 1 intends to illustrate an application primarily intended for a mobile telephony system, and comprises a base station 1, which communicates with mobile telephones 2 within the coverage area of the base station 1. In this connection, the base station 1 comprises one or more stored messages 3, as well as, in a known way, carries out searching/handshaking 4 in respect of mobile telephones 2 present within the coverage area of the base station 1, which are not off. Such a searching 4 is carried out continuously from a base station 1 in a previously known way, which means that all mobile telephones 2 are contacted at a certain time interval without the owners of the mobile telephones needing to take any measure.

According to the present invention, upon such a searching/handshaking procedure 4, advantageously, there is also carried out a transmission 5 to a contacted mobile telephone 2 of one or more of the messages 3 that are stored in the base station 1 for storage 6 in the mobile telephone 2.

With reference to Fig. 2, it is shown that when the holder of such a mobile telephone 2 starts a dialling 7, a message stored in a previously described way is displayed 8 on the display or display unit of the mobile telephone, wherein the same advantageously may be displayed at the same time as entered digits of a called telephone number are displayed adjacent to an edge portion of the display (not shown). While a dialling is carried out, no connection set-up to an adjacent base station 1 takes place, such a connection set-up does not take place until after the calling subscriber marks that a dialling is complete and terminated 9, and thereby presses the button for connection 10. In conjunction herewith, the display of the stored message is

interrupted 11. As is shown in Fig. 2 by dashed lines, the display may also be interrupted 11 at a later time, e.g., in connection with a completed connection set-up when ringing signals 12 are generated.

An alternative to the method shown Fig. 1 to transmit messages 3 is also shown by dashed lines in Fig. 2, as well as is based on the fact that a new message 13 is transmitted for storage to the calling mobile telephone in connection with the handshaking process that is initiated by the calling subscriber pressing the button for connection. However, this involves a marginal extension of the setting-up time, which however may be accepted in many circumstances.

In other types of communication networks, e.g., IP telephony and data-transmitting networks, a subscriber will get connection with the utilized communication network already in an initial part of the connection set-up phase, i.e., without the need of entering a complete subscriber number in the way that has been described with reference to mobile telephone networks. In such an application, advantageously, the requirement of storage of message in a calling communication instrument may be omitted, such as is shown in Fig. 3 in a simplified way. In this connection, a message can be transmitted already at an initial stage 14 of connection set-up to a transmitting network and be displayed 15 on the display of the calling communication instrument, and after accomplished connection set-up 16, then the display 17 of the message is interrupted.

The embodiment examples described above have been related to the utilization in a mobile telephone network, as well as to a communication network where a subscriber already during an initial stage of connection set-up, e.g., dialling or input of other address information, gets contact with the communication network. In this connection, by conveying messages of advertising character, the operator of the utilized network may offer connected subscribers a discounted connection cost. The subscribers who do not want to obtain this cost advantage, can also in a simple way be identified by the operator of the network, and thereby not obtain the visual message conveyed by the operator. Such a function for determining whether advertising messages should be addressed to a certain subscriber can be implemented in association with the verifying procedure carried out in connection with connection set-up taking place to a utilized communication network.

The method according to the present invention can be implemented in all communication networks to which subscribers are connected by a communication equipment comprising a display. It is also within the scope of the general idea of the invention that the visual message can be combined with an audio message, especially if the communication equipment of the subscribers, in addition to a display, also comprises a suitable loudspeaker equipment for translation of an audio message.

In wireless communication to a base station, conveyed messages may also be of local character, since the coverage area of the utilized base station provides a geographical determination of the location in question of a subscriber (being within the coverage area of the base station). In communication via the Internet and

with a fixed location of a subscriber, transmitted messages may also be of local character, since the location of a subscriber can be determined, e.g., by the subscriber's IP address or making use of address information available at the operator utilized.

In order to be able to establish which advertiser that is being displayed, based on a message received and stored previously, which, e.g., in mobile telephony is displayed before contact has been established with an adjacent base station, as well as during a dialling made by a subscriber, relevant identifying information about the displayed message (and thereby the name of the advertiser) may be transmitted to the base station in connection with the initial handshaking procedure. Such information may, e.g., consist of a digitally transmitted message that identifies the message and/or the advertiser. In this way, for instance, the cost for each advertiser for the utilization of the method according to the invention can be established on the basis of the number of displayed messages, wherein an advertiser also may be offered the possibility of stipulating a maximum payment level, such a maximum level attained implying that messages from the advertiser in question no longer are transmitted/displayed.

Thus, the method according to the present invention may be adapted in several different ways, as well as to different types of communication networks. In many cases, utilized communication equipment of subscribers connected to the communication network in question can also be used without additional hardware being required, e.g., when a message is transmitted as soon as a subscriber starts a connection set-up to a communication network, as well as when a message, in this way, can be transmitted directly for display on the display of the subscriber. Upon display of a stored message during, for instance, dialling on a mobile telephone, as well as when the mobile telephone utilized during this operation not yet has made a call to an adjacent base station, usually occurring mobile telephones already comprise such a memory capacity that one message (or several) can be stored, besides which information about which message that has been displayed can be retrieved from the mobile telephone during the handshaking process previously mentioned upon the connection set-up to the base station.

The described and shown principal embodiment examples are only intended to facilitate the understanding of the general idea of the invention, and are accordingly not intended to constitute any limitation to a certain type of communication network or communication instrument, however the last-mentioned one being assumed to comprise a display or a similar display device that allows display of a message. Accordingly, the method according to the invention may be implemented by one skilled in the art in several different ways within the scope of the general idea of the invention and the subsequent claims.

CLAIMS

1. Method for communication making use of a communication instrument comprising a display, such as a mobile telephone, IP telephone, PDA, Smartphone or another type of communication instrument, wherein, during a connection set-up phase to a utilized communication network, a message, transmitted to the communication instrument and preferably of advertising character, is displayed on the display of the communication instrument, wherein the display of said message is interrupted after accomplished connection set-up phase, and wherein the displayed message consists of a message transmitted to and stored into the communication instrument of the subscriber upon a previous connection to the utilized communication network, **characterized in that** the communication network is a mobile telephony network, and that the previous connection including a transmission of a visual message for storage in the communication instrument is carried out in connection with a connection, initiated from a base station, to communication instruments communicating with the mobile telephony network made for the determination of communication instruments present within the coverage area in question of the base station.
2. Method according to claim 1, **characterized in that** transmission of a visual message for storage in the communication instrument is carried out after a subscriber-initiated connection set-up to the communication network has been accomplished.
3. Method according to claim 1, **characterized in that** the communication instrument already upon the initiation of a connection set-up phase establishes contact with the utilized communication network, and that, in that connection, a message is transmitted and displayed during the remaining part of the connection set-up phase.
4. Method according to any one of claims 1–3, **characterized in that** information about which stored message that has been displayed before contact has been established with the communication network is transmitted from the communication instrument in connection with an initial handshaking process or another initial communication process.
5. Method according to any one of claims 1–4, **characterized in that** address information, such as, e.g., a subscriber telephone number, entered by a user, is displayed during the entering phase adjacent to an edge portion of the display with simultaneous display of the message.
6. Method according to any one of claims 1–5, **characterized in that** the visual message consists of immovable information, such as, for instance, a message in text format.
7. Method according to any one of claims 1–5, **characterized in that** the visual message consists of movable information, such as, for instance, a message in video format.

8. Method according to any one of claims 1–7, **characterized in that** the visual message is supplemented with an audio message.

Fig. 1

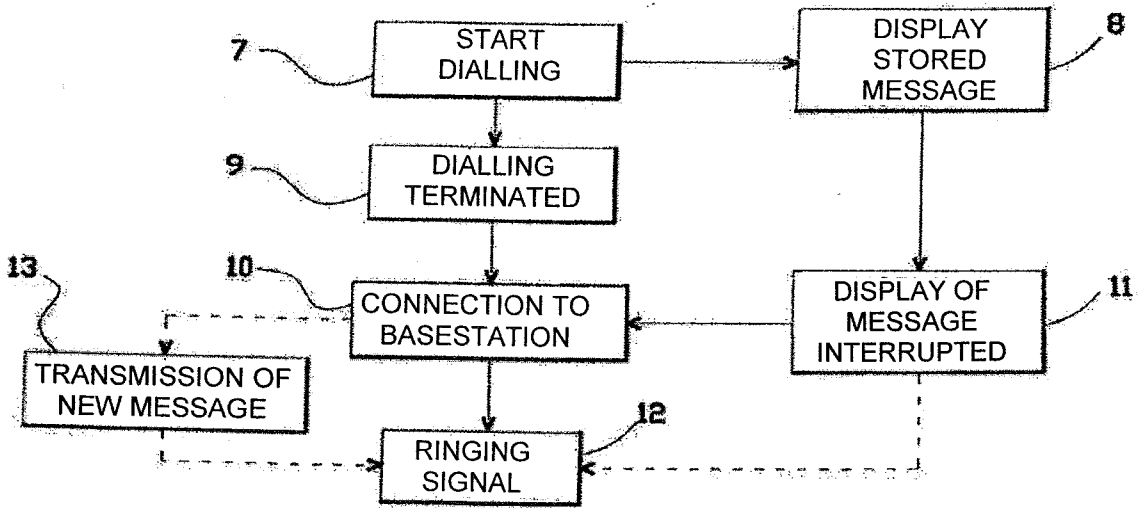
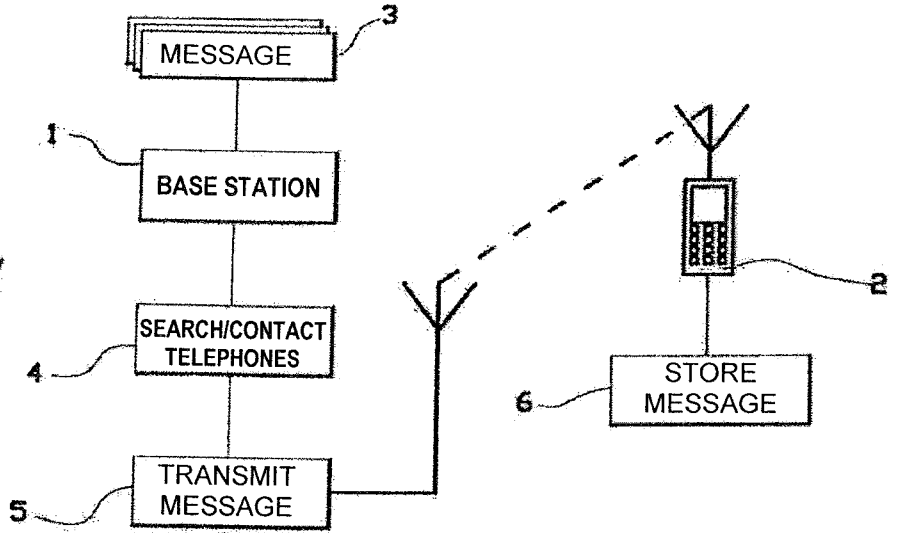


Fig. 2

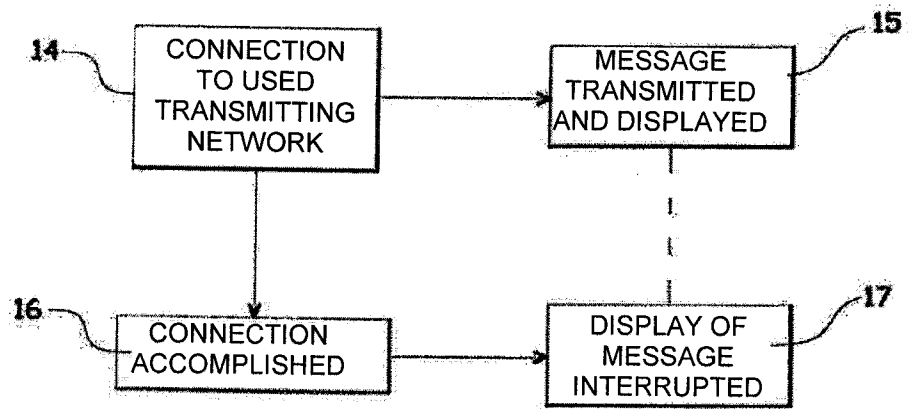


Fig. 3

INTERNATIONAL SEARCH REPORT

International application No.

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A. CLASSIFICATION OF SUBJECT MATTER

IPC: see extra sheet

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC: H04M

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

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Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

EPO-INTERNAL, WPI DATA, PAJ

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	EP 1003344 A2 (NORTEL NETWORKS CORP), 24 May 2000 (24.05.2000), paragraphs 0001; 0016-0017; 0022-0026; 0028-0032; 0033-0034, figures 1,2,; claims 1-9, abstract --	1-8
X	US 5880770 A (ILCISIN, K J ET AL), 9 March 1999 (09.03.1999), column 2, line 40 - line 65; column 3, line 8 - line 15; column 3, line 25 - line 42, column 3, line 59 - line 65; column 5, line 20 - line 65; column 6, line 6 - line 30; column 8, line 44 - line 67; column 9, line 1 - line 15, claims 1-20, abstract --	1-8
A	EP 1510955 A2 (NEC CORP), 2 March 2005 (02.03.2005), claims 1-31, abstract --	1-8

 Further documents are listed in the continuation of Box C. See patent family annex.

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C (Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT		
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 20020137531 A1 (JESCHKE, M), 26 Sept 2002 (26.09.2002), paragraphs 0004-0016, claims 1-6, abstract -- -----	1-8

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Cited literature, if any, will be enclosed in paper form.

INTERNATIONAL SEARCH REPORT

Information on patent family members

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