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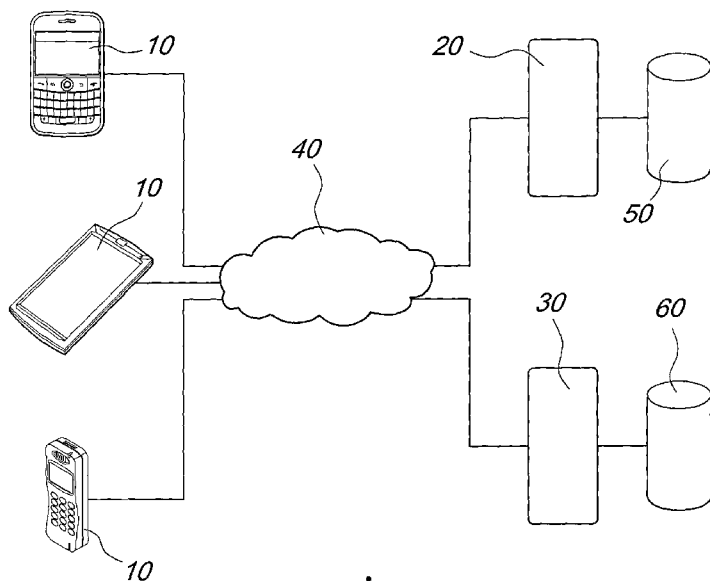


Fig. 1

(57) Abstract: A system for sending and viewing audiovisual documents over a communications network (40), comprising a message generator (20) and a content provider (30), is characterized in that the message generator (20) is configured to send to one or more mobile devices (10) an SMS message which comprises at least one link related to a domain of the content provider (30); the content provider (30) comprises means for detecting identification data of a mobile device (10) transmitted by the mobile device (10) to the content provider (30) following the selection of the link on the mobile device (10) by a user; the content provider (30) further comprises means for delivering, on the basis of the identification data, audiovisual information in a format which is optimized for viewing on the mobile device (10).

METHOD AND SYSTEM FOR TRANSMITTING AND VIEWING HIGH QUALITY VIDEO ON MOBILE STATIONS

The present invention falls within the context of services related to the exchange of advertising information over cellular networks, with
5 particular reference to services for viewing audiovisual content.

In recent years there has been a considerable growth and spread of telematic means of communication, both from a technological standpoint and in terms of the diffusion of telematic networks, among which new-generation cellular networks, currently capable of carrying data at a far
10 higher rate than the first data networks of the past decade, stand out.

In particular, the use of third-generation (3G) networks and the advent of fourth-generation (4G and LTE) networks allow data transmission in download, i.e., from a base station of the cellular network to the mobile station, that is tens of times faster than in the past.

15 This technological development has given rise to a process of transformation in the everyday habits of people, who having quickly understood the advantages of telematic means of communication over traditional communication systems utilize the practicality, speed and low cost of new mobile stations for the exchange of information and data in
20 general.

The communication devices that are becoming most popular in recent times are so-called smart mobile stations, commonly known as smartphones, which allow the exchange of information with methods inherited or transposed from preexisting systems, such as personal computers on one
25 side and traditional mobile stations on the other side.

For example, one mode of communication that is very widespread in smartphones to exchange information is the use of e-mail. E-mail allows its users to exchange not only text messages but also images, sounds and documents, which can be transferred easily by a sender to one or more
30 recipients.

Typically, in order to use e-mail, a user creates a message by using a particular program, known as e-mail client, which can connect by means of a telematic network to other terminals. The connection must allow to reach a computer, i.e., an e-mail server.

5 Once the user has finished composing his/her e-mail message, he/she sends it by pressing an adapted graphic button which is displayed in a video frame of the e-mail client that he/she is using.

As a consequence of this, the message is encoded appropriately and transmitted from the computer of the sender to the e-mail server of the
10 recipient according to a suitable communications protocol.

When the recipient of the message opens his/her e-mail client and connects to the Internet, he/she can "check" his/her e-mail, i.e., he/she can poll the e-mail server to know if there are pending messages intended for him/her.

15 If there are, these messages are transferred physically from the server to the mobile device of the recipient, who can thus use his/her own client to view the message and any attachments.

Despite the practicality and convenience of e-mail, one strongly felt problem is the impossibility to attach large files (data sequences),
20 particularly videos, to the messages.

Storing videos in fact requires an enormous amount of data compared to other types of attachment, giving rise to two important problems.

The first problem is the time required to transfer the message from the client of the sender to the e-mail server and from the e-mail server to the
25 mobile station of the recipient. The speeds of the connection and accordingly the time required for the transfer of the data from one station to the other in fact vary according to the physical medium used, but are usually insufficient to ensure transmission and reception in short times, giving rise to long waiting times and in some cases useless connection costs until the
30 transfer has been completed.

The second problem is that the amount of space needed to store said videos is such as to use up rapidly the space available on the data storage media of the recipient, particularly the memory available in the mobile station, consequently degrading performance until the system collapses.

5 In addition to this, most e-mail service providers set a limit to the size of the messages that pass through their servers, indeed to avoid the collapse of their own resources, and therefore it is often even impossible, in the background art, to send videos of a certain size by e-mail.

There is, therefore, a first evident need to provide an optimum
10 solution for exchanging audiovisual files over telematic networks other than the mere transposition of the use of conventional e-mail on mobile stations of the smartphone type.

A further problem dictated by the use of e-mail as an advertising tool relates to the reckless and often unwanted or unauthorized use of e-mail,
15 known as spamming, which has occurred massively in recent years.

In practice, users are accustomed to receiving tens of advertising e-mail messages every day, to the point that they substantially no longer pay any attention to them. An advertiser who wishes to bring a certain number of users closer to an event by using e-mail, therefore, currently has few
20 chances of success in attracting the attention of the recipient.

Another problem relates to the plurality of e-mail accounts that are typically available for each user. Users, in fact, are usually associated with different e-mail addresses, including for example a work e-mail address, a private address given to relatives and friends, and a second private address
25 which is made public to all third parties for less important communications.

The user does not always configure his/her smartphone with all the e-mail addresses, and even if he/she does so he/she often tends not to read or to ignore advertising messages that arrive on a generic account.

Not coincidentally, one of the most widespread means of
30 communication, even among users of smartphones or of similar portable

devices in general, for example tablets, when one wishes to be almost certain of the attention of the other party, is still the text message, known by the acronym SMS.

The SMS has the inherent advantage of being associated uniquely
5 with the telephone number of the owner of the smartphone. Moreover, the user, upon receiving an SMS, always pays attention and reads the text in full, also thanks to the fact that an SMS has important size constraints. A single SMS in fact can contain only 160 characters. Although today it is possible to combine automatically multiple SMSs and send them
10 sequentially and transparently, making a single composite SMS appear on the smartphone of the recipient, the amount of information that can be carried remains in any case minimal.

As technological devices and their computing and transmission power evolved, the need was soon felt to increase the capabilities for users in the
15 exchange of messages, providing the possibility to also exchange audio and video information, for example a photograph or a small video. All this led to the generation of tools known as MMS and video messages, which allow to insert portions of audiovisual data in a message.

However, even these tools are not devoid of drawbacks. The amount
20 of information that can be sent through these tools is, in any case, very limited compared to the capabilities of current mobile stations. Moreover, sending MMSs or video messages entails considerable costs in terms of sending charges.

The aim of the present invention is therefore to provide a new method
25 and system for sending advertising information, including audiovisual information, that overcomes the problems described above.

Within this aim, an object of the present invention is to provide a system that allows to send large messages, particularly containing videos, between a sender and recipients, without degrading the performance of the
30 smartphones or mobile stations involved in the operation.

A further object of the present invention is to provide the sender with the possibility to characterize significantly the viewing context of the message, creating graphical interfaces, even customized ones, which can be used by the recipients to control and view the message and its attachments, particularly videos, upon receiving a message.

This aim and these and other objects which will become better apparent hereinafter are achieved by a system for sending and viewing audiovisual documents over a communications network, comprising a message generator and a content provider. The message generator is configured to send to one or more mobile devices an SMS message which comprises at least one link related to a domain of the content provider; the content provider comprises means for detecting identification data of a mobile device which are transmitted by the mobile device to the content provider following the selection of the link on the mobile device by a user; the content provider further comprises means for delivering, on the basis of the identification data, audiovisual information in a format which is optimized for viewing on the mobile device.

Moreover, the content provider can be configured to deliver to the mobile device interactive content, preferably only after the video content has been viewed.

The message generator can be configured so as to find a plurality of telephone numbers, associated with the mobile devices, to which a same SMS message is to be sent.

The aim and objects of the invention are further achieved by a method for sending and viewing audiovisual documents over a communications network, comprising the steps that consist in generating and sending to one or more mobile devices an SMS message which comprises at least one link related to a domain of a content provider; detecting, on the part of the content provider, identification data of a mobile device transmitted by the mobile device following the selection of the link on the mobile device by a

user; delivering, on the basis of the identification data, audiovisual information in a format which is optimized for viewing on the mobile device.

Further characteristics and advantages of the invention will become better apparent from the following detailed description, given by way of nonlimiting example in the accompanying drawings, wherein:

Figure 1 is a block diagram related to a possible architecture of the system according to the present invention;

Figure 2 is a block diagram which illustrates in greater detail an aspect of the architecture of Figure 1;

Figure 3 is a flowchart of a first embodiment of the method according to the present invention;

Figure 4 is a flowchart of a second embodiment of the method according to the present invention.

In detail, Figure 1 is a view of a preferred embodiment of an architecture in the context of which the system according to the present invention lies.

Figure 1 illustrates a plurality of mobile devices 10, a message generator 20, a content provider 30 and a communications network 40.

Each one of the mobile devices 10 is any device of the client type configured to communicate with the message generator 20 and with the content provider 30 by means of the communications network 40. In a preferred embodiment, each mobile device is a smartphone, enabled for the SMS service and for connection to the Internet, for example by means of the WAP protocol (in particular later than version 1.1) or HTTP protocol. However, the mobile devices 10 are representative of any terminal provided with a communications card that enables it to receive messages of the SMS type over cellular networks, including for example tablets.

The message generator 20 is a known system of the server type, which is adapted to generate and send SMS messages to the plurality of

mobile devices 10. In particular, each SMS message is preferably structured with an optional text content and with a hypertext content, typically a link, the address of which preferably belongs to the domain of the content provider 30, as will be described in greater detail with reference to Figures 3 and 4.

The message generator 20 comprises, or has access to, first storage means 50, which can comprise for example a database or any data structure adapted to store information permanently. In particular, the first storage means 50 can comprise means for storing telephone numbers of the users to whom SMS messages are to be sent.

The content provider 30 is a known system of the server type, particularly a Web server, which comprises hardware and software which are dedicated to the delivery of content, particularly webpages and multimedia content, for example of the audio or video type. The content provider 30 comprises, or has access to, second storage means 60, which can comprise for example a database or any data structure adapted to store information permanently. In particular, the second storage means 60 can comprise means for storing audiovisual content.

The mobile devices 10, the message generator 20 and the content provider 30 described previously are connected to a communications network 40. The communications network 40 is any telematic communications network or a combination of interconnected telematic networks. Among these, the network that allows the connection of the mobile stations is any cellular network, for example a Global System for Mobile Communications (GSM) network or a Universal Mobile Telecommunications System (UMTS) network or any other third-generation (3G) network, fourth-generation (4G) network or the like. Said network is further connected to the Internet.

Of course, the elements shown schematically in Figure 1 are shown merely by way of example: in particular, the person skilled in the art shall

understand without effort that the several servers are differentiated exclusively for reasons of clarity, since it is evident that some, in an extreme case all, the functions performed by the several servers might be grouped on a single server.

5 Symmetrically, the message generator 20 and the content provider 30 might be located on different networks and managed independently by different operators; for example, the content provider 30 might be managed by the service operator, while the message generator 20 might be managed directly by a telephone operator.

10 With reference to Figure 2, a possible architecture of the mobile devices 10 is now described in greater detail.

As is known, each mobile device 10 can be provided with a plurality of applications that allow the execution of given functionalities, for example an application for sending and receiving SMS.

15 The term application is understood, in this context, to reference one or more programs, routines, subroutines, function calls or other type of software or firmware and the like, used alone or in combination.

Each mobile device 10 comprises an application for communication via SMS 11, an application for Internet browsing 12 and an application for
20 playing video content 13.

Operation of the system provides for two distinct steps: a step of preparing and sending a message and the step of receiving and displaying the message, as will be described with reference to Figures 3 and 4.

With reference to Figure 3, in step 100 the message generator 20
25 composes the text of a message to be sent to a plurality of mobile devices 10 via SMS, by way of software means which are installed appropriately on the server itself and optionally under the input of an operator, who can operate on the server itself or by means of a remote client, according to methods which are known in the art.

30 The SMS message comprises a link which corresponds to a web

address; in a preferred embodiment, the page that corresponds to this address is hosted on the content provider 30.

In a first preferred embodiment, said address points to a 3gp video, i.e., the pointed content has a MIME type of "video/3gpp".

5 In step 110, the message composed in step 100 is sent to one or more mobile devices 10 via SMS by means of the communications network 40. For this purpose, the message generator 20 has means which are configured to access the first storage means 50, in order to find the list of cellular phone numbers to which the message is to be sent and then scan the list, sending a
10 message to each number contained in the list, according to methods known in the art.

In step 120, the SMS message sent by the message generator 20 is received on the mobile device 10 of the user. The user views this message by means of the SMS communication application 11, which is capable of
15 recognizing the link contained in the message and of making it clickable according to methods known in the art; in step 130, the user can select to click on said link. As is known to the person skilled in the art, the selection of this link triggers, in step 140, the activation of the Internet browsing application 12 of the mobile device 10 and the loading of the address that
20 corresponds to the link. In turn, the loading of the link triggers, in step 150, the sending of a WSP data request to the content provider 30.

In step 160, the content provider 30 sends to the Internet browsing application 12 of the mobile device 10 the requested content, which is displayed on the mobile device 10 in step 170, according to methods that are
25 peculiar to the mobile device 10.

In particular, if the sent content has a MIME type of "video/3gpp", the mobile device 10 starts the video content player application 13, which can be a stand-alone player or a plug-in hosted in the Internet browsing application 12 and plays the requested video content in full-screen mode
30 and in high quality.

With reference to Figure 4, a possible embodiment of a method that extends the method for playing video content of Figure 3 to the delivery of interactive content following the viewing of the video content is now described.

5 The steps 200 to 250 of the method are similar to steps 100 to 150 described with reference to Figure 3. The only difference resides in that in this case the link that is sent by SMS does not point directly to a video content, but points to an HTML page which is hosted on the content provider 30 and is configured first of all so as to be able to discriminate the
10 type of mobile device from which the content delivery request has arrived.

In step 260, therefore, said HTML page is retrieved on the content provider 30.

In step 270, the code contained in said page analyzes the headers of the WSP request in order to recognize the type of smartphone from which
15 the request has arrived. In a preferred embodiment, this recognition occurs by analyzing the "HTTP user agent" string contained in said headers. The WSP request further encodes the content that must be delivered in reply to the request, according to methods known in the art.

On the basis of the information found in step 270, in step 275 the
20 content provider 30 generates an HTML page which comprises the content to be delivered, so that it is optimized for the particularities of the device on which they will be played.

By way of nonlimiting example, in step 270 the request is categorized according to one of the three main client families: clients provided with the
25 Android operating system, clients of the Apple iPhone type, and clients of the Research In Motion (RIM) BlackBerry type.

If in step 270 the mobile device 10 has been recognized as a client provided with the Android operating system, in step 275 the content provider 30 generates a page which comprises a portion which is coded in a
30 markup language, for example HTML, and a portion which is coded in a

client-side scripting language, for example JavaScript. The markup elements comprise a suitable tag which is adapted to contain the 3gp video to be shown. The scripting code is configured to detect the "load" event, i.e., the loading of said video, and to perform a number of actions in response to this event, including playing the video, waiting for the end of the video and, at the end of the video, redirecting the browser to a second page, which hosts the interactive content to be displayed following the display of the video.

If in step 270 the mobile device 10 has been recognized as a client of the Apple iPhone type, in step 275 the content provider 30 generates a page which comprises a portion coded in a markup language, for example HTML, and a portion coded in a client-side scripting language, for example JavaScript. The markup elements comprise a suitable tag which is adapted to contain the 3gp video to be shown and to display an initial image that represents statically the video, the so-called poster frame.

In this case, the scripting code is configured to detect the "play" event, i.e., the click of the user on the image of the poster frame, and to perform a number of actions in response to this event, including updating the viewing data, playing the video, waiting for the end of the video and, at the end of the video, redirecting the browser to a second page, which hosts the interactive content to be displayed following the viewing of the video.

If in step 270 the mobile device 10 has been recognized as a client of the RIM BlackBerry type, in step 275 the content provider 30 detects, in addition to the family of the device, i.e., BlackBerry, also the specific model of device and, on the basis of this model, determines the dimensions of the screen of the device. In one embodiment, these dimensions are determined by querying an adapted lookup table which is stored in the second storage means 60.

On the basis of these determined dimensions, the content provider 30 selects from the second storage means 60 two images which are optimized for the detected dimensions and generates a page which is coded in a

markup language, for example HTML, in which the two images are arranged adjacent, the first one in the upper portion and the second one in the lower portion of the page.

The upper image is clickable and configured to play the 3gp video to be shown following the click of the user. The lower image also can be clickable and, once selected, redirects the browser to a second page, which can host the interactive content to be displayed. In a preferred embodiment, the image provided in the lower part of the page becomes clickable only after the image provided in the upper part of said page has been clicked.

10 In step 280, the customized page generated in step 275 is sent to the mobile device 10.

In step 290, the content is displayed on the user device according to methods which are variable according to the type of device. In particular, in view of what has been shown in step 270, in the case of a device of the Android type, the video starts automatically and at the end of the video the browser is automatically redirected to a page that comprises interactive content related to the video.

In the case of a device of the iPhone type, a poster frame which comprises a button for starting the video superimposed thereon is displayed to the user, and at the end of the video the browser is redirected automatically to a page which comprises interactive content related to the video; finally, in the case of a device of the BlackBerry type, the user is shown a page in which in the upper part there is a poster frame with a button for starting the video superimposed thereon and in the lower part there is a button which, once clicked, takes the user to a second page which comprises interactive content related to the video.

The interactive content can be of several kinds: in one embodiment, it is a web application by means of which the user can find and/or send additional information, for example reporting an appreciation, requesting to be called back to have information, locating the nearest dealer, reserving a

test, starting a customized game, taking part in a contest, and so forth, according to methods known in the art.

It has thus been shown that the invention achieves the intended aim and objects. In particular, it has been shown that the method and system
5 described allows to send to users audiovisual information in a manner which is simple and effective. The sending of SMS with links to multimedia content allows users to view video content in which, with respect to delivery solutions containing video that are known in the art, such as MMS messages or video messages, the dimensions and types of the videos are less limited,
10 compatibility with the several devices is greater, and the sending and viewing cost is better balanced between the sender and the recipient.

Moreover, the method according to the invention allows to characterize in a significant manner the viewing context of the video content: since by activating the link the user is guided to a web application,
15 it is possible to associate with the playback of the video the offer of interactive content that enriches the viewing experience of the user.

Of course, numerous modifications are evident and can be performed promptly by the person skilled in the art without abandoning the protective scope of the present invention. For example, it is obvious for the person
20 skilled in the art to replace one communication protocol with another, depending on the requirements and on the technology made available on the market, and likewise it is evident that the physical formats of the SMS message and of the videos may be any according to the requirements.

It is also evident that the inventive concept on which the present
25 invention is based is independent of the actual implementation of the software modules, which can be provided in any language and on any hardware platform.

Therefore, the scope of the protection of the claims must not be limited by the illustrations or preferred embodiments shown in the
30 description by way of example, but rather the claims must comprise all the

characteristics of patentable novelty that reside in the present invention, including all the characteristics that would be treated as equivalents by the person skilled in the art.

Where technical features mentioned in any claim are followed by
5 reference signs, those reference signs have been included for the sole purpose of increasing the intelligibility of the claims and accordingly such reference signs do not have any limiting effect on the interpretation of each element identified by way of example by such reference signs.

CLAIMS

1. A system for sending and viewing audiovisual documents over a communications network (40), comprising a message generator (20) and a content provider (30), characterized in that:
- 5 – said message generator (20) is configured to send to one or more mobile devices (10) an SMS message which comprises at least one link related to a domain of said content provider (30);
- said content provider (30) comprises means for detecting identification data of a mobile device (10) transmitted by said mobile device
- 10 (10) to said content provider (30) following the selection of said link on said mobile device (10) by a user;
- said content provider (30) further comprises means for delivering, on the basis of said identification data, audiovisual information in a format which is optimized for viewing on said mobile device (10).
- 15 2. The system according to claim 1, characterized in that said content provider (30) is further configured to deliver interactive content to said mobile device (10).
3. The system according to claim 2, characterized in that said content provider 30 is further configured to deliver to said mobile device (10) said
- 20 interactive content after the viewing of said video content has occurred.
4. The system according to one or more of the preceding claims, characterized in that said message generator (20) is configured to find a plurality of telephone numbers associated with said mobile devices (10) to which a same SMS message is to be sent.
- 25 5. A method for sending and viewing audiovisual documents over a communications network (40), comprising the steps of:
- generating (100, 200) and sending (110, 210) to one or more mobile devices (10) an SMS message which comprises at least one link related to a domain of a content provider (30);
- 30 – detecting (270), on the part of said content provider (30),

identification data of a mobile device (10) which are transmitted by said mobile device (10) following the selection of said link on said mobile device (10) by a user;

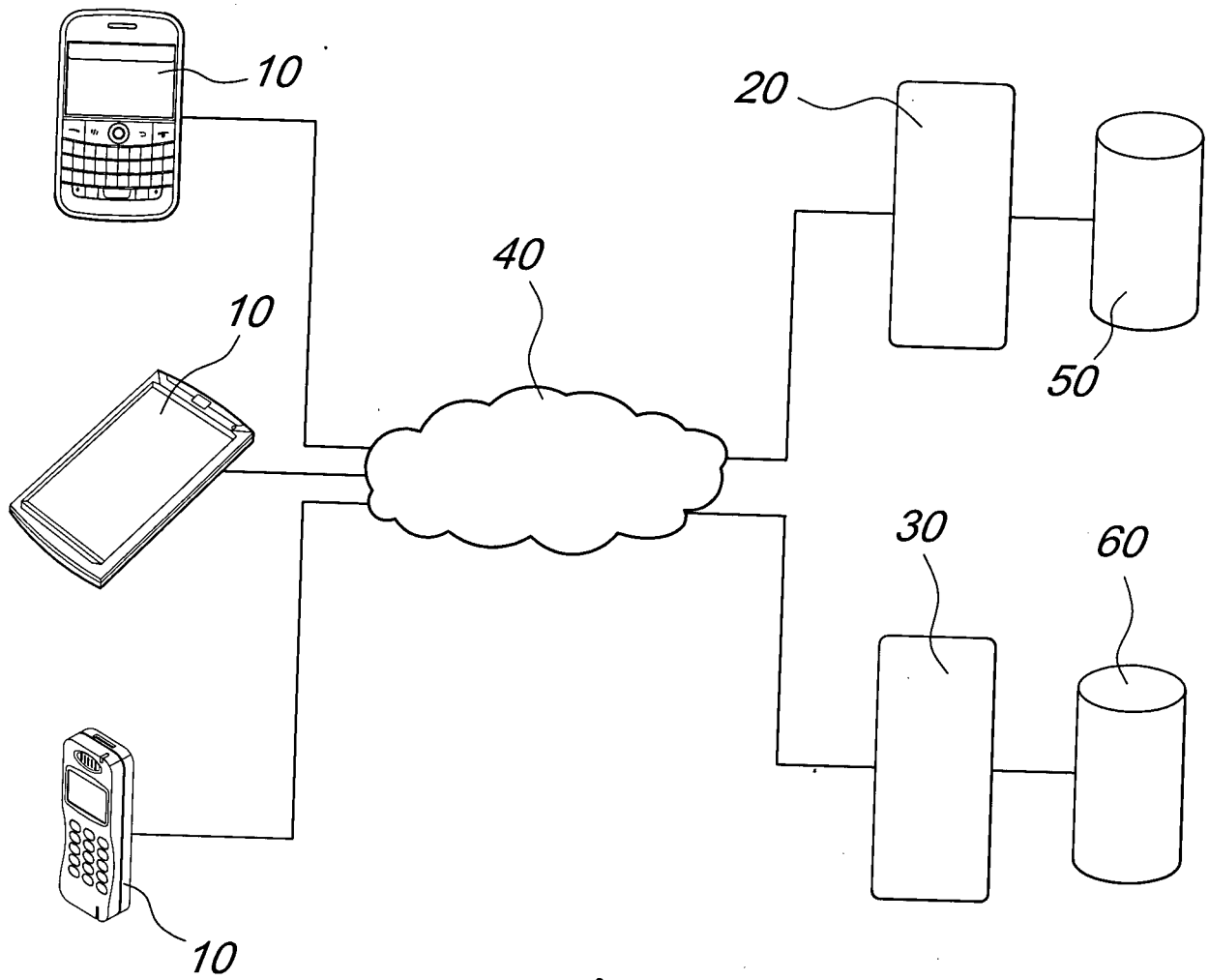
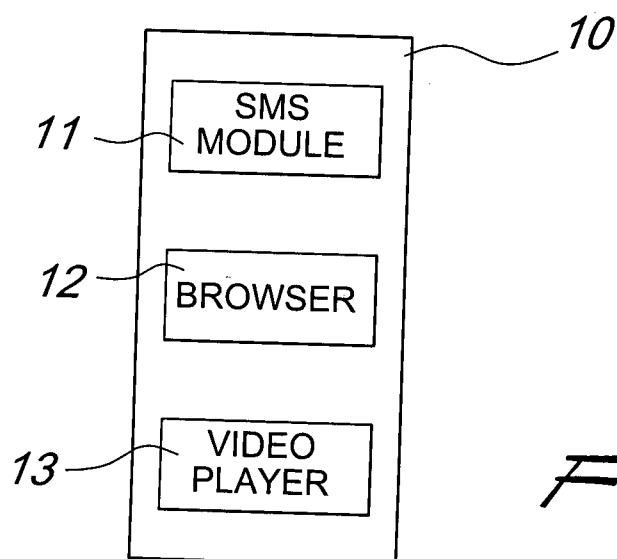
- delivering (275, 280), on the basis of said identification data,
5 audiovisual information in a format which is optimized for viewing on said mobile device (10).

6. The method according to claim 5, comprising the step of delivering to said mobile device (10), on the part of said content provider (30), interactive content.

- 10 7. The method according to claim 6, comprising the step of delivering to said mobile device (10), on the part of said content provider (30), said interactive content after the viewing of said audiovisual information has occurred.

- 15 8. The method according to one or more claims 5 to 7, characterized in that a same message is generated and sent to a plurality of telephone numbers associated with said mobile devices (10).

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*Fig. 1**Fig. 2*

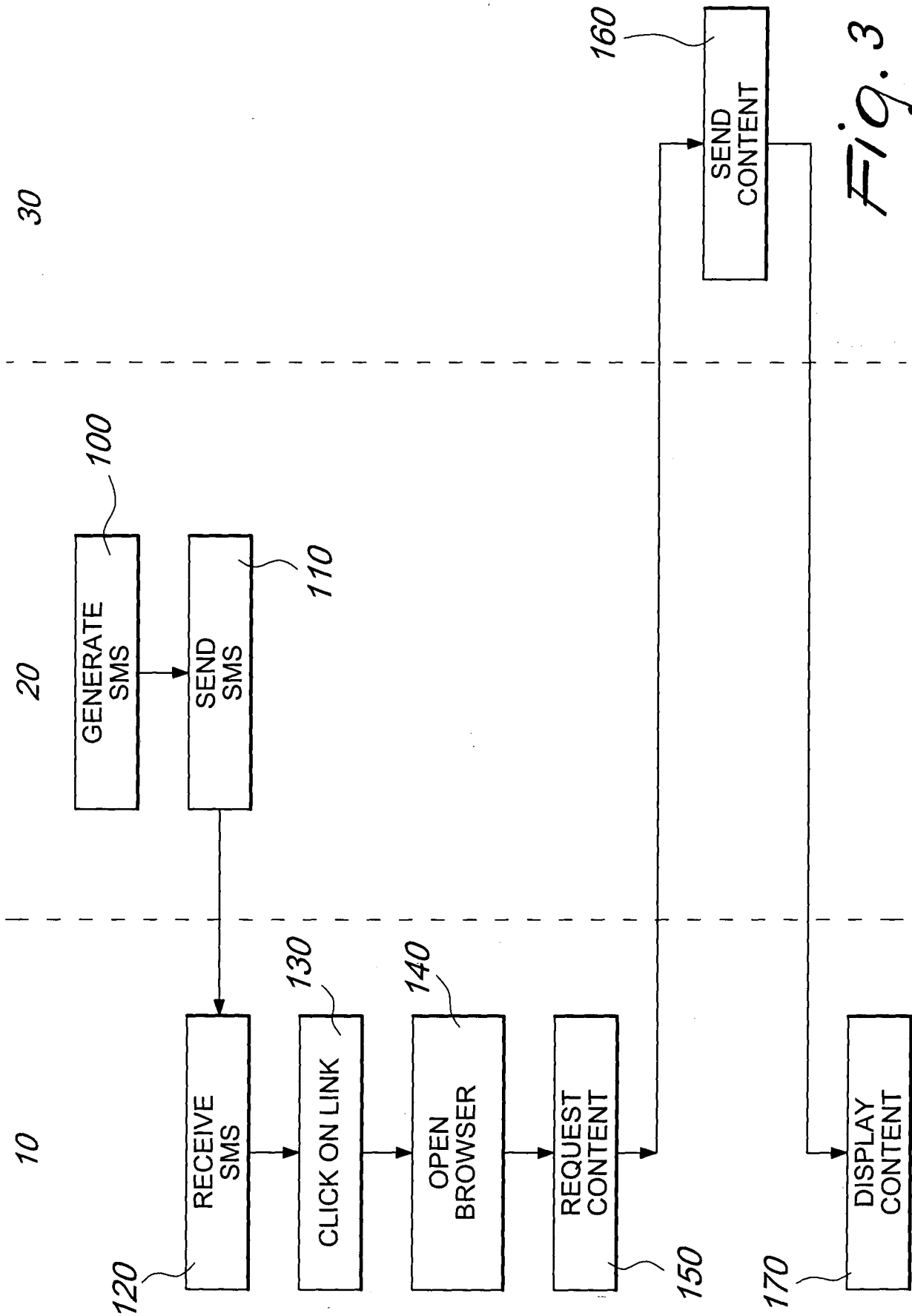
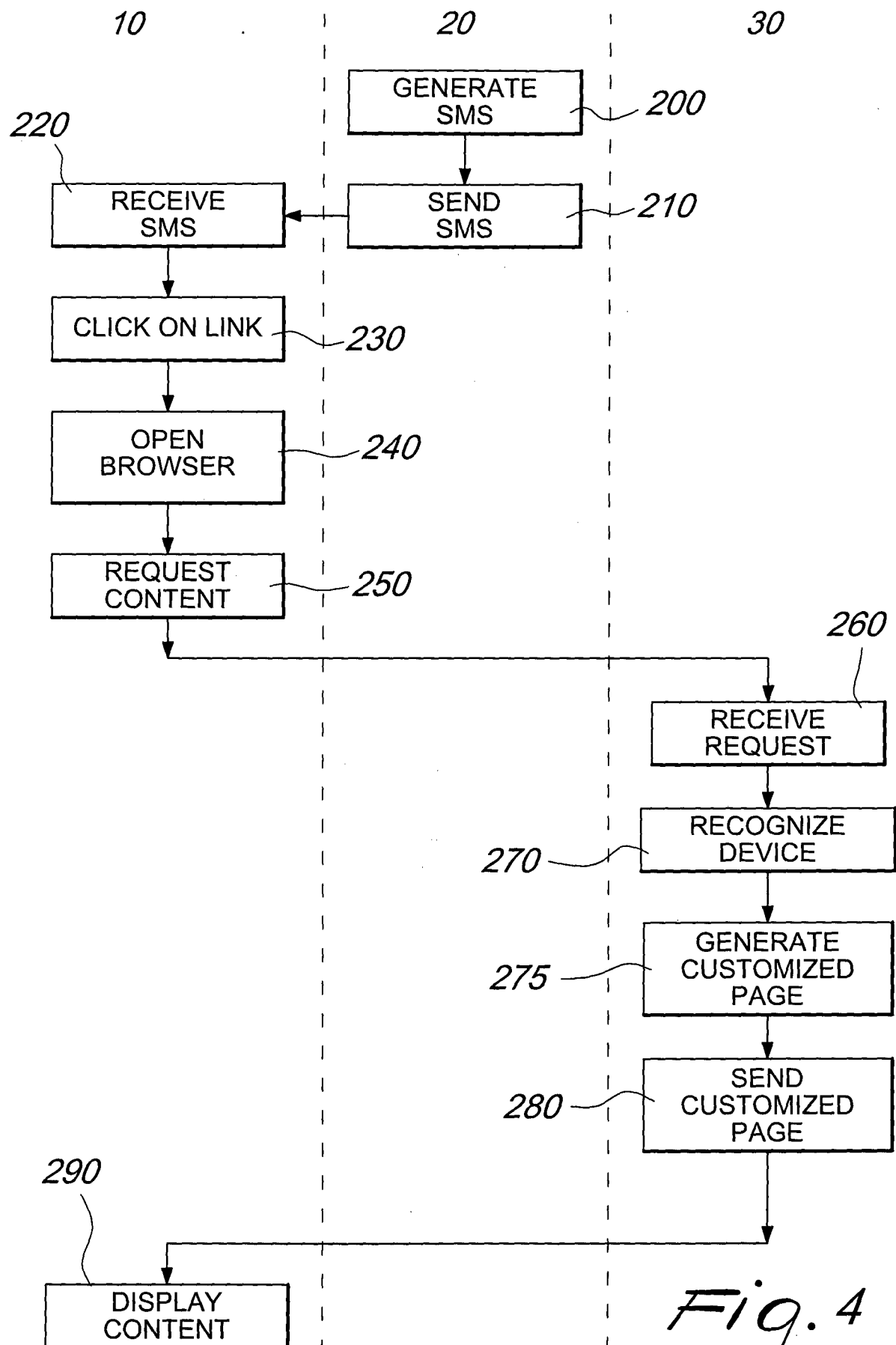


Fig. 3

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INTERNATIONAL SEARCH REPORT

International application No
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A. CLASSIFICATION OF SUBJECT MATTER
INV. H04W4/12
ADD.

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)
H04W

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

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

EPO-Internal

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 2010/159965 A1 (PASCAL KRISTIN MARIE [US] ET AL) 24 June 2010 (2010-06-24) abstract paragraphs [0035], [0046] - [0053]; claims 1-4 -----	1-8
X	US 2009/156170 A1 (ROSSANO ANTHONY [US] ET AL) 18 June 2009 (2009-06-18) abstract paragraphs [0027] - [0033] -----	1-8
X	EP 2 357 599 A1 (RESEARCH IN MOTION LTD [CA]) 17 August 2011 (2011-08-17) abstract paragraphs [0014], [0040] - [0045] -----	1-8



Further documents are listed in the continuation of Box C.



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INTERNATIONAL SEARCH REPORT

Information on patent family members

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Patent document cited in search report	Publication date	Patent family member(s)	Publication date
US 2010159965	A1	24-06-2010	NONE

US 2009156170	A1	18-06-2009	US 2009156170 A1 18-06-2009
			US 2009158136 A1 18-06-2009
			WO 2009076650 A1 18-06-2009

EP 2357599	A1	17-08-2011	CA 2694563 A1 27-08-2010
			CN 101819582 A 01-09-2010
			EP 2357599 A1 17-08-2011
