

[0018] FIG. 10 is a screen shot of a mobile device operating in another mode according to the system and method of the present invention.

DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENT

[0019] The present invention relates to a system and method for communicating emergency data for use by an individual or first responder in an emergency situation. Generally, the present invention utilizes database applications configured for wireless devices, such as mobile telephones. The mobile devices are communicable with a networked database through both the wireless telephone network and the Internet such that an individual's personal data can be communicated through the mobile device at his or her location.

[0020] FIG. 1 is a schematic block diagram of the system 10 for communicating emergency data according to one aspect of the present invention. The system 10 includes a data center 12 that is connectable to a mobile device 16 through a network gateway 14. The data center 12 is communicable with the network gateway 14 over standard network protocols, including hypertext transfer protocol (HTTP), commonly used for networked communications. The network gateway 14 is preferably configured for relaying data between the Internet and a Global System for Mobile Communications (GSM) network. However, other digital and cellular networks employed by mobile telephone service providers are equally well suited to the system 10 of the present invention. Communication between the network gateway 14 and the mobile device 16 passes through a carrier center 18 that is adapted for receiving and distributing data between the network gateway 14 and the mobile device 16. In particular, data communication is preferably exercised through a particular protocol known as Short Message Service (SMS), more commonly known as text messaging.

[0021] The present invention is further adapted for additional communication means that may utilize or bypass the network gateway 14. For example, in addition to the SMS protocol, the present invention can be readily adapted for use according to both the Multimedia Messaging System (MMS) and the Wireless Application Protocol (WAP). As is known by those skilled in the art, MMS operates similarly to SMS, but is capable of incorporating graphics as well as video and audio clips in its data stream within 3G networks. In an MMS embodiment, the present invention would preferably still utilize the network gateway 14 for translating HTTP data into the MMS format. WAP is an open international standard used for wireless communication that provides Internet access to mobile device. As known by those skilled in the art, WAP suites are compatible with HTTP and HTTPS data formats, and thus any embodiment of the present invention utilizing WAP is adapted to do so without the network gateway 14, as direct communication between the data center 12 and the mobile device 16 is readily afforded.

[0022] The data center 12 includes a number of components that permit user access through the Internet as well as communication of the data to the mobile device 16. In particular, a web user interface 120 allows a user to view and update or modify his or her personal information that is

stored on the database server 122. The data center 12 also includes transmitting means 124, such as a software application, for storing and forwarding the user data to the network gateway 14. Moreover, the data center 12 includes receiving means 126, such as a software application, for receiving data from the network gateway 14.

[0023] The network gateway 14 includes conversion means 140 for converting HTTP data requests from the data center 12 into SMS or MMS data; and a second conversion means 142 for converting SMS or MMS data received from the carrier center 18 into HTTP data receivable by the data center 12. Each of these conversion means 140, 142 can be embodied in computer software that is specially adapted according to the present invention for receiving, coding and transmitting data in a specified manner. As the size of SMS or MMS messages is typically limited in size, those data transfers that exceed this limit are divided into multiple SMS or MMS transmissions, with the first transmission indicating the gross number of transmissions to be received. For transmissions that are divided as so, each subsequent packet includes data indicating its order in the overall transmission such that the entirety of the message can be reassembled at the mobile device 16. Therefore, the network gateway 14 divides large transmissions received in HTTP format into multiple transmissions to be delivered via the SMS or MMS format. Conversely, the network gateway 14 compiles a sequence of SMS or MMS messages from the mobile device 16 into one or more HTTP transmissions directed to the data center 12. Alternatively, the network gateway 14 can convert one or more SMS or MMS messages into a series of one or more HTTP transmissions, indicating the gross number of transmissions and the proper order, such that the HTTP transmissions can be readily assembled at the data center 12.

[0024] The mobile device 16 includes an SMS/MMS routing system 160, including a port for receiving SMS/MMS message text and the associated power, memory and processing means that are known in the art of mobile telephony. An embedded application 162, such as a MIDlet or other mobile information device software program, is operable on the mobile device 16 and connectable to the SMS/MMS routing system 160. The embedded application 162 includes a plurality of modules that operate in concert to permit a user to store, access and edit the emergency data. For example, a first module 164 operates to merge or configure the SMS/MMS data as received from the SMS/MMS routing system 160, which may include the process of merging multiple SMS/MMS messages into a single data stream. A database 166 is included in the embedded application 162 for receiving and storing the merged or configured SMS/MMS messages. A data entry module 168 is also in communication with the database 166, permitting a user to input and save data on his or her mobile device 16. The data entry module 168 may include software that recognizes text as entered by a user as well as the capacity to distinguish between distinct fields of data entry related to the user's emergency data. The data entry module 168 is in further communication with a display 170, which includes the necessary software and hardware components for viewing the text of an SMS/MMS message and other data. Lastly, the data entry module 168 is in communication with an SMS/MMS composition module 172 that receives, formats and readies for delivery any SMS/MMS message text or data that is entered by the user. The SMS/MMS composition