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Abstract

METHOD OF TRANSMITTING AN EMERGENCY BROADCAST MESSAGE

A method (200) of transmitting an emergency broadcast message is disclosed. A first short textual message including one or more keywords is received. The keywords are matched to at least one recipient group, the recipient group comprising contact details for one or more recipients. The emergency broadcast message is transmitted to each of the recipients within the recipient group.

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Invention Title:	Method of transmitting an emergency broadcast message

The following statement is a full description of this invention, including the best method of performing it known to me/us:

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METHOD OF TRANSMITTING AN EMERGENCY BROADCAST MESSAGE

Technical Field of the Invention

The present invention relates to a method and apparatus for transmitting an emergency broadcast message. The present invention also relates to a computer program product including a computer readable medium having recorded thereon a computer program for transmitting an emergency broadcast message.

Background

In the recent global political environment, many organisations both big and small are looking to acquire an ability to quickly communicate health and safety-related emergency information, service information, or other concerns, to their staff, residents and other members of their community.

One known emergency broadcast system uses a combination of various communication methods, such as telephone calls, text messages to mobile devices, and e-mail, for sending emergency broadcast messages. The emergency broadcast messages are sent using recipients' contact details including telephone numbers and email addresses, which are registered with the system's administrator. If an emergency occurs, emergency management personnel, in consultation with senior management, determine the need for an emergency broadcast message. Depending on the determination, the emergency broadcast message is then transmitted by one of the emergency management personnel. The message is typically sent by logging onto a computer, executing a software application, composing the message, selecting the recipients and then transmitting the message using the recipients' contact details.

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Summary

It is an object of the present invention to substantially overcome, or at least ameliorate, one or more disadvantages of existing arrangements.

According to one aspect of the present invention there is provided a method of transmitting an emergency broadcast message, said method comprising:

receiving a first short textual message including one or more keywords;

matching the keywords to at least one recipient group, the recipient group comprising contact details for one or more recipients; and

transmitting the emergency broadcast message as a second short textual message to each of the recipients within the recipient group.

According to another aspect of the present invention there is provided an apparatus for transmitting an emergency broadcast message, said apparatus comprising:

means for receiving a first short textual message including one or more keywords;

means for matching the keywords to at least one recipient group, the recipient group comprising contact details for one or more recipients; and

means for transmitting the emergency broadcast message as a second short textual message to each of the recipients within the recipient group.

According to still another aspect of the present invention there is provided a system for transmitting an emergency broadcast message, said system comprising:

a memory for storing data and a computer program;

a processor coupled to said memory for executing said computer program, said computer program comprising instructions for:

receiving a first short textual message including one or more keywords;

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matching the keywords to at least one recipient group, the recipient group comprising contact details for one or more recipients; and

transmitting the emergency broadcast message as a second short textual message to each of the recipients within the recipient group.

According to still another aspect of the present invention there is provided a computer readable medium having recorded thereon a computer program for transmitting an emergency broadcast message, said program comprising:

code for receiving a first short textual message including one or more keywords;

code for matching the keywords to at least one recipient group, the recipient group comprising contact details for one or more recipients; and

code for transmitting the emergency broadcast message as a second short textual message to each of the recipients within the recipient group.

Other aspects of the invention are also disclosed.

Brief Description of the Drawings

One or more embodiments of the present invention will now be described with reference to the drawings and appendices, in which:

Figs. 1A and 1B form a schematic block diagram of a general purpose computer system upon which arrangements described can be practiced;

Fig. 2 is a flow diagram showing a method of transmitting an emergency broadcast message; and

Fig. 3 is a flow diagram showing a method of matching the keywords to at least one recipient group, as executed in the method of Fig. 2.

Detailed Description including Best Mode

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Where reference is made in any one or more of the accompanying drawings to steps and/or features, which have the same reference numerals, those steps and/or features have for the purposes of this description the same function(s) or operation(s), unless the contrary intention appears.

A method 200 of transmitting an emergency broadcast message is described below with reference to Fig. 2. The described method 200 allows a emergency broadcast message to be initiated from a mobile telephone, a digital telephone, a personal data assistant (PDA) or the like, as will be described in detail below.

Figs. 1A and 1B collectively form a schematic block diagram of a computer system 100, upon which the various arrangements described can be practiced.

As seen in Fig. 1A, the computer system 100 is formed by a computer module 101, input devices such as a keyboard 102, a mouse pointer device 103, a scanner 126, a camera 127, and a microphone 180, and output devices including a printer 115, a display device 114 and loudspeakers 117. An external Modulator-Demodulator (Modem) transceiver device 116 may be used by the computer module 101 for communicating to and from a communications network 120 via a connection 121. The network 120 may be a wide-area network (WAN), such as the Internet or a private WAN. Where the connection 121 is a telephone line, the modem 116 may be a traditional "dial-up" modem. Alternatively, where the connection 121 is a high capacity (e.g., cable) connection, the modem 116 may be a broadband modem. A wireless modem may also be used for wireless connection to the communications network 120.

The computer module 101 typically includes at least one processor unit 105, and a memory unit 106 for example formed from semiconductor random access memory (RAM) and semiconductor read only memory (ROM). The module 101 also includes an number

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of input/output (I/O) interfaces including an audio-video interface 107 that couples to the video display 114, loudspeakers 117 and microphone 180, an I/O interface 113 for the keyboard 102, mouse 103, scanner 126, camera 127 and optionally a joystick (not illustrated), and an interface 108 for the external modem 116 and printer 115. In some implementations, the modem 116 may be incorporated within the computer module 101, for example within the interface 108. The computer module 101 also has a local network interface 111 which, via a connection 123, permits coupling of the computer system 100 to a local computer network 122, known as a Local Area Network (LAN). As also illustrated, the local network 122 may also couple to the wide network 120 via a connection 124, which would typically include a so-called "firewall" device or device of similar functionality. The interface 111 may be formed by an Ethernet™ circuit card, a Bluetooth™ wireless arrangement or an IEEE 802.11 wireless arrangement.

The interfaces 108 and 113 may afford either or both of serial and parallel connectivity, the former typically being implemented according to the Universal Serial Bus (USB) standards and having corresponding USB connectors (not illustrated). Storage devices 109 are provided and typically include a hard disk drive (HDD) 110. Other storage devices such as a floppy disk drive and a magnetic tape drive (not illustrated) may also be used. An optical disk drive 112 is typically provided to act as a non-volatile source of data. Portable memory devices, such optical disks (e.g., CD-ROM, DVD), USB-RAM, and floppy disks for example may then be used as appropriate sources of data to the system 100.

The components 105 to 113 of the computer module 101 typically communicate via an interconnected bus 104 and in a manner which results in a conventional mode of operation of the computer system 100 known to those in the relevant art. Examples of

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computers on which the described arrangements can be practised include IBM-PC's and compatibles, Sun Sparcstations, Apple Mac™ or alike computer systems evolved therefrom.

The described method may be implemented using the computer system 100 wherein the processes of Fig. 2, to be described, may be implemented as one or more software application programs 133 executable within the computer system 100. In particular, the steps of the method 200 may be effected by instructions 131 in the software that are carried out within the computer system 100. The software instructions 131 may be formed as one or more code modules, each for performing one or more particular tasks. The software may also be divided into two separate parts, in which a first part and the corresponding code modules performs the method 200 and a second part and the corresponding code modules manage a user interface between the first part and the user.

The software may be stored in a computer readable medium, including the storage devices described below, for example. The software is loaded into the computer system 100 from a computer readable medium, and then executed by the computer system 100. The software 133 is then typically stored in the HDD 110 or the memory 106. A computer readable medium having such software or computer program recorded on it is a computer program product. The use of the computer program product in the computer system 200 preferably effects an advantageous apparatus for implementing the method 200.

In some instances, the application programs 133 may be supplied to the user encoded on one or more CD-ROM 125 and read via the corresponding drive 112, or alternatively may be read by the user from the networks 120 or 122. Still further, the software can also be loaded into the computer system 100 from other computer readable media. Computer readable storage media refers to any storage medium that participates in

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providing instructions and/or data to the computer system 100 for execution and/or processing. Examples of such storage media include floppy disks, magnetic tape, CD-ROM, a hard disk drive, a ROM or integrated circuit, USB memory, a magneto-optical disk, or a computer readable card such as a PCMCIA card and the like, whether or not such devices are internal or external of the computer module 101. Examples of computer readable transmission media that may also participate in the provision of software, application programs, instructions and/or data to the computer module 101 include radio or infra-red transmission channels as well as a network connection to another computer or networked device, and the Internet or Intranets including e-mail transmissions and information recorded on Websites and the like.

The second part of the application programs 133 and the corresponding code modules mentioned above may be executed to implement one or more graphical user interfaces (GUIs) to be rendered or otherwise represented upon the display 114. Through manipulation of typically the keyboard 102 and the mouse 103, a user of the computer system 100 and the application may manipulate the interface in a functionally adaptable manner to provide controlling commands and/or input to the applications associated with the GUI(s). Other forms of functionally adaptable user interfaces may also be implemented, such as an audio interface utilising speech prompts output via the loudspeakers 117 and user voice commands input via the microphone 180.

Fig. 1B is a detailed schematic block diagram of the processor 105 and a "memory" 134. The memory 134 represents a logical aggregation of all the memory modules (including the HDD 109 and semiconductor memory 106) that can be accessed by the computer module 101 in Fig. 1A.

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When the computer module 101 is initially powered up, a power-on self-test (POST) program 150 executes. The POST program 150 is typically stored in a ROM 149 of the semiconductor memory 106. A hardware device such as the ROM 149 is sometimes referred to as firmware. The POST program 150 examines hardware within the computer module 101 to ensure proper functioning, and typically checks the processor 105, the memory (109, 106), and a basic input-output systems software (BIOS) module 151, also typically stored in the ROM 149, for correct operation. Once the POST program 150 has run successfully, the BIOS 151 activates the hard disk drive 110. Activation of the hard disk drive 110 causes a bootstrap loader program 152 that is resident on the hard disk drive 110 to execute via the processor 105. This loads an operating system 153 into the RAM memory 106 upon which the operating system 153 commences operation. The operating system 153 is a system level application, executable by the processor 105, to fulfil various high level functions, including processor management, memory management, device management, storage management, software application interface, and generic user interface.

The operating system 153 manages the memory (109, 106) in order to ensure that each process or application running on the computer module 101 has sufficient memory in which to execute without colliding with memory allocated to another process. Furthermore, the different types of memory available in the system 100 must be used properly so that each process can run effectively. Accordingly, the aggregated memory 134 is not intended to illustrate how particular segments of memory are allocated (unless otherwise stated), but rather to provide a general view of the memory accessible by the computer system 100 and how such is used.

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The processor 105 includes a number of functional modules including a control unit 139, an arithmetic logic unit (ALU) 140, and a local or internal memory 148, sometimes called a cache memory. The cache memory 148 typically includes a number of storage registers 144 - 146 in a register section. One or more internal busses 141 functionally interconnect these functional modules. The processor 105 typically also has one or more interfaces 142 for communicating with external devices via the system bus 104, using a connection 118.

The application program 133 includes a sequence of instructions 131 that may include conditional branch and loop instructions. The program 133 may also include data 132 which is used in execution of the program 133. The instructions 131 and the data 132 are stored in memory locations 128-130 and 135-137 respectively. Depending upon the relative size of the instructions 131 and the memory locations 128-130, a particular instruction may be stored in a single memory location as depicted by the instruction shown in the memory location 130. Alternately, an instruction may be segmented into a number of parts each of which is stored in a separate memory location, as depicted by the instruction segments shown in the memory locations 128-129.

In general, the processor 105 is given a set of instructions which are executed therein. The processor 105 then waits for a subsequent input, to which it reacts to by executing another set of instructions. Each input may be provided from one or more of a number of sources, including data generated by one or more of the input devices 102, 103, data received from an external source across one of the networks 120, 102, data retrieved from one of the storage devices 106, 109 or data retrieved from a storage medium 125 inserted into the corresponding reader 112. The execution of a set of the instructions may

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in some cases result in output of data. Execution may also involve storing data or variables to the memory 134.

The disclosed arrangements use input variables 154 that are stored in the memory 134 in corresponding memory locations 155-158. The arrangements produce output variables 161 that are stored in the memory 134 in corresponding memory locations 162-165. Intermediate variables may be stored in memory locations 159, 160, 166 and 167.

The register section 144-146, the arithmetic logic unit (ALU) 140, and the control unit 139 of the processor 105 work together to perform sequences of micro-operations needed to perform "fetch, decode, and execute" cycles for every instruction in the instruction set making up the program 133. Each fetch, decode, and execute cycle comprises:

(a) a fetch operation, which fetches or reads an instruction 131 from a memory location 128;

(b) a decode operation in which the control unit 139 determines which instruction has been fetched; and

(c) an execute operation in which the control unit 139 and/or the ALU 140 execute the instruction.

Thereafter, a further fetch, decode, and execute cycle for the next instruction may be executed. Similarly, a store cycle may be performed by which the control unit 139 stores or writes a value to a memory location 132.

Each step or sub-process in the processes of Fig. 2 is associated with one or more segments of the program 133, and is performed by the register section 144-147, the ALU 140, and the control unit 139 in the processor 105 working together to perform the

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fetch, decode, and execute cycles for every instruction in the instruction set for the noted segments of the program 133.

The method 200 may alternatively be implemented in dedicated hardware such as one or more integrated circuits performing the functions or sub functions of the described method 200. Such dedicated hardware may include graphic processors, digital signal processors, or one or more microprocessors and associated memories.

The method 200 of transmitting an emergency broadcast message will now be described with reference to Fig. 2. The method 200 will be described by way of example with reference to a University using the method 200 to transmit emergency broadcast messages concerning health and safety concerns, disruption of normal university functions due to weather, crime, or other concerns, to their staff and students.

In accordance with the present example, prior to execution of the method 200, the staff and students register their contact details (e.g., telephone numbers, email addresses) with an Administrator. The Administrator may be a senior manager, or the like, of the University. The Administrator provides the contact details to a telecommunications Service Provider, who operates and maintains the computer system 100. Alternatively, the staff and students may register their contact details (e.g., telephone numbers, email addresses) directly with the telecommunications Service Provider. For example, the staff and students may access a website offered by the Service Provider, in order to register their contact details.

The Administrator also provides (or "registers") the Service Provider with a plurality of keywords representing various health and safety-related emergency situations and/or service situations. These provided keywords may be termed "registered keywords". In the present example, the Administrator provides the Service Provider with the keywords

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"intruder", "fire" and "shooting" representing safety-related emergency situations which may occur on the University campus. The keyword "intruder" indicates that there is an intruder on the University campus; the keyword "fire" indicates that there is a fire somewhere on the University campus; and the keyword "shooting" indicates that there has been a shooting on the University campus. However, it will be appreciated that the Administrator may provide any suitable keyword for representing any manner of health and safety-related emergency situation, service situation and/or other situations.

The keywords provided by the Administrator are stored by the Service Provider in a database configured within the hard disk drive 110 of the computer module 101. Alternatively, the database may be configured within another hard disk drive within a remote computer connected to the networks 120 and/or 122.

Each of the stored keywords is associated with an emergency broadcast message within the database. For example, the keyword "intruder" may be associated within the database with the emergency broadcast message "An intruder is on campus. Lockdown your room or office until further notice." As another example, the keyword "fire" may be associated within the database with the emergency broadcast message "Fire on campus. Move to assembly area until further notice."

The emergency broadcast message associated with each of the keywords within the database may be customised by the Administrator. In particular, when registering the keywords, the Administrator may suggest to the Service Provider what message is to be associated with each of the registered keywords. Alternatively, the Service Provider may provide default messages to be associated with certain keywords (e.g., fire, shooting, intruder).

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The stored keywords are also associated within the database with the Administrator's contact details. In the present example, the stored keywords are associated with the Administrator's mobile telephone number. In another implementation, the stored keywords may be associated with the Administrator's email address.

The Administrator also provides the Service Provider with one or more other keywords representing recipient groups together with the contact details of the various people belonging to each of the recipient groups. In the present example, the Administrator provides the Service Provider with the keywords "staff", "all" and "students". The contact details of the staff are provided to the Service Provider to be associated with the keyword, "staff". The contact details of the students are provided to the Service Provider to be associated with the keyword, "students". Similarly, all of the contact details provided by the Administrator are associated with the keyword, "all". The keywords and the associated contact details are stored by the Service Provider in the database configured within the hard disk drive 110. The Administrator's telephone number is also stored in the database and is associated with the stored keywords registered by the Administrator. The Administrator's email address may also be stored in the database and be associated with the stored keywords registered by the Administrator.

In the present example, the Service Provider provides the Administrator with a dedicated telephone number which may be used by the Administrator to trigger an emergency broadcast as described in detail below. In another implementation, the Service Provider may provide the Administrator with an email address which may be used by the Administrator to trigger an emergency broadcast

The method 200 may be implemented as one or more software modules resident on the hard disk drive 110 and being controlled in their execution by the processor 105.

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The method 200 begins at step 201, where the processor 105 performs the step of receiving a first short textual message, via the network 120. The message includes one or more keywords. In accordance with the present example, the message includes the keywords "staff intruder." However, the message may include any number of keywords. For example, the message may include the keywords "staff students intruder" or "staff students contractors intruder".

In accordance with the present example, the first short textual message is a Short Message Service (SMS) message. Alternatively, the first short textual message is contained within an electronic mail (e-mail).

At the next step 203, the processor 105 performs the step of matching at least the first of the keywords received at step 201 to at least one recipient group. As described above, each of the recipient groups comprises contact details, including the telephone numbers and email addresses, for one or more recipients. In the present example, the recipients are the staff members of the University, as identified by the keyword "staff". As will be described in detail below, in order to match the keywords to the staff recipient group, the processor 105 uses the Administrator's telephone number received with the message received at step 201. As described above, the Administrator's telephone number is also stored in the database configured within the hard disk drive 110 and is associated with the stored keywords registered by the Administrator. The processor 105 matches the received telephone number with a telephone number registered for the Administrator and stored in the database within the hard disk drive 110. For the implementation where the first short textual message is received in an email message, at step 201, the processor 105 matches the Administrator's email address (i.e., the sender's email address) with an email

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address registered for the Administrator and stored in the database within the hard disk drive 110.

Also at step 203, the processor 105 matches the second keyword to an emergency broadcast message associated with the second keyword in the database configured within the hard disk drive 110. In the instance that the message includes more than two keywords, at step 203 the processor 105 matches the last keyword in the message with the emergency broadcast message associated with that keyword in the database. For example, if the message is "staff students intruder", the processor 105 will match the keyword "intruder" to the broadcast message. In still another alternative implementation, another one of the keywords (e.g., a first keyword in the message) may be matched to the broadcast message. A method 300 of matching the keywords to at least one recipient group, as executed at step 203, will be described in detail with reference to Fig. 3.

The method 200 concludes at the next step 205, where the processor 105 performs the step of transmitting the emergency broadcast message, as a second short textual message, to each of the recipients within the matched recipient groups. The emergency broadcast message is transmitted to the recipients via the communications network 120. The transmitted emergency broadcast message is based on the second keyword included in the received message. As described above, in another example where the received message includes more than two keywords, the transmitted emergency broadcast message is based on the last keyword included in the received message. In the present example, as the second keyword is "intruder", the processor 105 determines that the emergency broadcast message is "An intruder is on campus. Lockdown your room or office until further notice." The emergency broadcast message is stored as text in the database configured within the hard disk drive 110 and is associated with the keyword "intruder".

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The processor 105 transmits the emergency broadcast message at step 205 as an SMS message to the telephone number of each recipient in the matched recipient groups. As described above, the emergency broadcast message may be transmitted to each of the recipients via the communications network 120. The emergency broadcast message may be received by each of the recipients via a mobile telephone, a digital telephone and/or a personal data assistant (PDA).

In one implementation, rather than transmitting the emergency broadcast message as an SMS message to the telephone numbers, the processor 105 may transmit the short textual message within an email to the email address of each recipient in the matched recipient group. In another implementation, the emergency broadcast message may be sent to both the telephone numbers and the email addresses. In still another implementation, the emergency broadcast message may be sent as a pre-recorded audio message to the telephone number of each recipient in the matched recipient group, rather than the short textual message.

The method 300 of matching the keywords to at least one recipient group, as executed at step 203, will be described in detail with reference to Fig. 3. The method 300 may be implemented as software resident on the hard disk drive 110 and being controlled in its execution by the processor 105.

The method 300 begins at the first step 301, where the processor 105 performs the step of matching the Administrator's telephone number received with the message at step 201, with one or more of the telephone numbers stored in the hard disk drive 110. As described above, the keywords registered by the Administrator are associated with the Administrator's telephone number stored in the database within the hard disk drive 110 prior to execution of the method 200. In one implementation, the processor 105 may

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perform the step of matching the Administrator's email address received with the email message at step 201, with one or more of the email addresses stored in the hard disk drive 110.

Then at step 303, the processor 105 matches the first of the keywords received with the message at step 201 to one of the keywords associated with the Administrator's telephone number stored in the database within the hard disk drive 110. In the present example, the first keyword is "staff". As described above, prior to execution of the method 200, the keyword "staff" is stored in the database and is associated with the contact details of the staff members of the University. The processor 105 determines all of the contact details, including the telephone number, associated with each of the staff members in the group. In another implementation where the received message includes more than two keywords, at step 303, the processor 105 matches each of the keywords before the last keyword of the received message, to one of the keywords associated with the Administrator's telephone number. For example, the received message may be "staff student intruder". In this instance, at step 303, the processor 105 matches each of the first two keywords (i.e., staff, student) to one of the keywords associated with the Administrator's telephone number. Accordingly, the method 300 may be used to send the broadcast message to multiple recipient groups.

The method 300 concludes at the next step 305, where the processor 105 matches the second keyword to an emergency broadcast message. In the present example, the second keyword was "intruder" which is associated within the database with the message, "An intruder is on campus. Lockdown your room or office until further notice." In another implementation where the received message includes more than two keywords, at step 305, the processor 105 matches the last keyword of the received message, to the emergency

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broadcast message. For example, the received message may be "staff student intruder". In this instance, at step 303, the processor 105 matches the last keyword (i.e., intruder) to the emergency broadcast message associated with the keyword intruder.

The first short textual message received at step 201, may be created by the Administrator using a message template stored on the Administrator's mobile telephone, PDA, personal computer or other communications device. The template may require a first keyword (e.g., staff) representing a recipient group as described above. The template may also require a second keyword (e.g., intruder) representing the emergency situation as described above.

Alternatively, the second short textual message sent at step 205 may be a custom message created by the Administrator. In one example, the custom message requires the term "custom" to be included in the first short textual message received by the processor 105 as at step 201. In this instance, everything after the term custom will be included in the broadcast message transmitted as at step 205. For example, rather than sending the template message "staff intruder" the Administrator may type and send the message "staff ***custom*** There is an intruder on campus – Lockdown your room or office until further notice". In this instance, the custom message, "There is an intruder on campus – Lockdown your room or office until further notice", provided by the Administrator will be the message transmitted as the broadcast message at step 205 rather than the pre-stored message associated with the term "intruder" as described above.

Alternatively, the processor 105 may be configured so that the custom second short textual message is transmitted without the term "custom" being included in the first short textual message. In such an implementation, the broadcast message may be everything occurring after the second keyword in the first short textual message received at

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step 201. For example, the first short textual message may be "staff students There is an intruder on campus – Lockdown your room or office until further notice". In this instance, the broadcast message sent to each of the staff and students recipient groups will be "There is an intruder on campus – Lockdown your room or office until further notice."

In the methods described above, the emergency broadcast was triggered by the Administrator. In alternative embodiments, the emergency broadcast may be triggered by any particular person associated with the organisation (e.g., the University) using the method 200. For example, all members of the staff recipient group may be able to trigger the emergency broadcast message. However, in this instance, all of the staff members' telephone numbers and/or email addresses are also stored in the database and are associated with the stored keywords registered by the Administrator.

As described above, prior to execution of the method 200, the Administrator provides the Service Provider with a plurality of keywords representing various health and safety-related emergency situations and/or service situations. However, some keywords may be reserved. For example, the term "help" may be reserved. In this instance, upon the processor 105 determining that the keyword "help" has been received from the Administrator (e.g., at step 203), then the processor 105 transmit details of recipient groups, registered keywords, and associated emergency broadcast messages, back to the Administrator, in a short textual message or as an email attachment.

The methods described above have been described with reference to an emergency broadcast. However, it will be appreciated that the methods described above may be utilised in other situations and industries. For example, the methods described above may be used for transmitting broadcast advertisement messages to one or more recipients. In this instance, an Administrator or the like may request different broadcast

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advertisements using keywords in the manner described above. The keywords may indicate a recipient group and a particular predetermined advertisement message, where the predetermined advertisement message may be associated with a particular keyword within a database such as the database configured within the hard disk drive 110.

Industrial Applicability

The arrangements described are applicable to the computer and data processing industries and particularly for the transmitting messages.

The foregoing describes only some embodiments of the present invention, and modifications and/or changes can be made thereto without departing from the scope and spirit of the invention, the embodiments being illustrative and not restrictive.

In the context of this specification, the word "comprising" means "including principally but not necessarily solely" or "having" or "including", and not "consisting only of". Variations of the word "comprising", such as "comprise" and "comprises" have correspondingly varied meanings.

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The claims defining the invention are as follows:

1. A method of transmitting an emergency broadcast message, said method comprising:

receiving a first short textual message including one or more keywords;

matching the keywords to at least one recipient group, the recipient group comprising contact details for one or more recipients; and

transmitting the emergency broadcast message as a second short textual message to each of the recipients within the recipient group.

2. The method according to claim 1, wherein the emergency broadcast message is determined based on one of the keywords.

3. The method according to claim 1, wherein the emergency broadcast message may be transmitted as a pre-recorded audio message.

4. The method according to claim 1, wherein the first short textual message is created and transmitted from a mobile telephone.

5. The method according to claim 1, wherein the first short textual message is created according a template.

6. The method according to claim 1, wherein at least one of the keywords represents the recipient group.

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7. The method according to claim 1, wherein one of the keywords represents the emergency broadcast message.

8. An apparatus for transmitting an emergency broadcast message, said apparatus comprising:

means for receiving a first short textual message including one or more keywords;

means for matching the keywords to at least one recipient group, the recipient group comprising contact details for one or more recipients; and

means for transmitting the emergency broadcast message as a second short textual message to each of the recipients within the recipient group.

9. A system for transmitting an emergency broadcast message, said system comprising:

a memory for storing data and a computer program;

a processor coupled to said memory for executing said computer program, said computer program comprising instructions for:

receiving a first short textual message including one or more keywords;

matching the keywords to at least one recipient group, the recipient group comprising contact details for one or more recipients; and

transmitting the emergency broadcast message as a second short textual message to each of the recipients within the recipient group.

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10. A computer readable medium having recorded thereon a computer program for transmitting an emergency broadcast message, said program comprising:

code for receiving a first short textual message including one or more keywords;

code for matching the keywords to at least one recipient group, the recipient group comprising contact details for one or more recipients; and

code for transmitting the emergency broadcast message as a second short textual message to each of the recipients within the recipient group.

11. A method of transmitting an emergency broadcast message, said method being substantially as herein before described with reference to any one of the embodiments as that embodiment is shown in the accompanying drawings.

12. An apparatus for transmitting an emergency broadcast message, said apparatus being substantially as herein before described with reference to any one of the embodiments as that embodiment is shown in the accompanying drawings.

13. A system for transmitting an emergency broadcast message, said system being substantially as herein before described with reference to any one of the embodiments as that embodiment is shown in the accompanying drawings.

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14. A computer readable medium having recorded thereon a computer program for transmitting an emergency broadcast message, said program being substantially as herein before described with reference to any one of the embodiments as that embodiment is shown in the accompanying drawings.

DATED this tenth Day of March 2010

TRAITEL TELECOMMUNICATIONS PTY LIMITED

Patent Attorneys for the Applicant

SPRUSON&FERGUSON

2009222543 02 Oct 2009

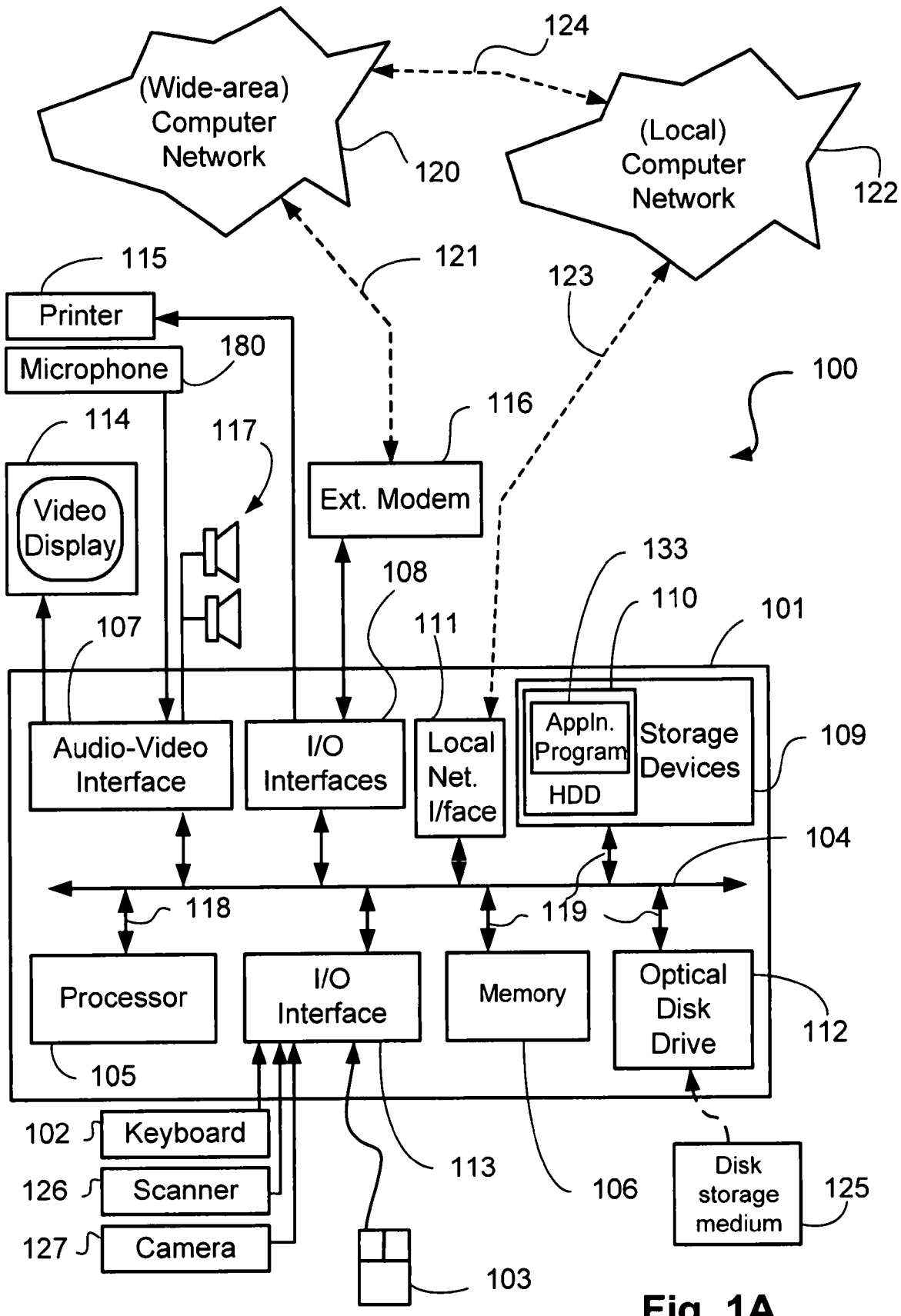

Fig. 1A

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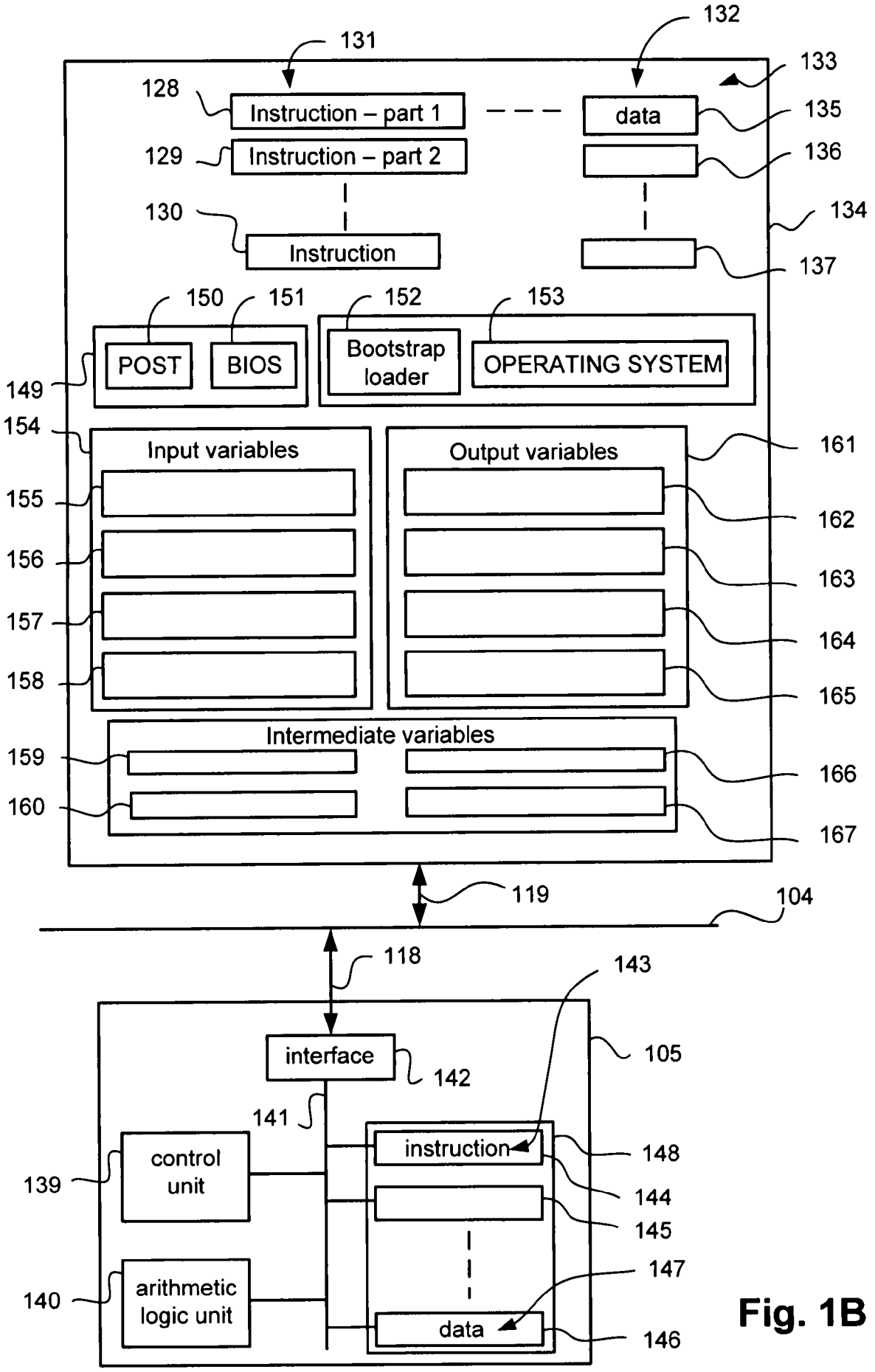

Fig. 1B

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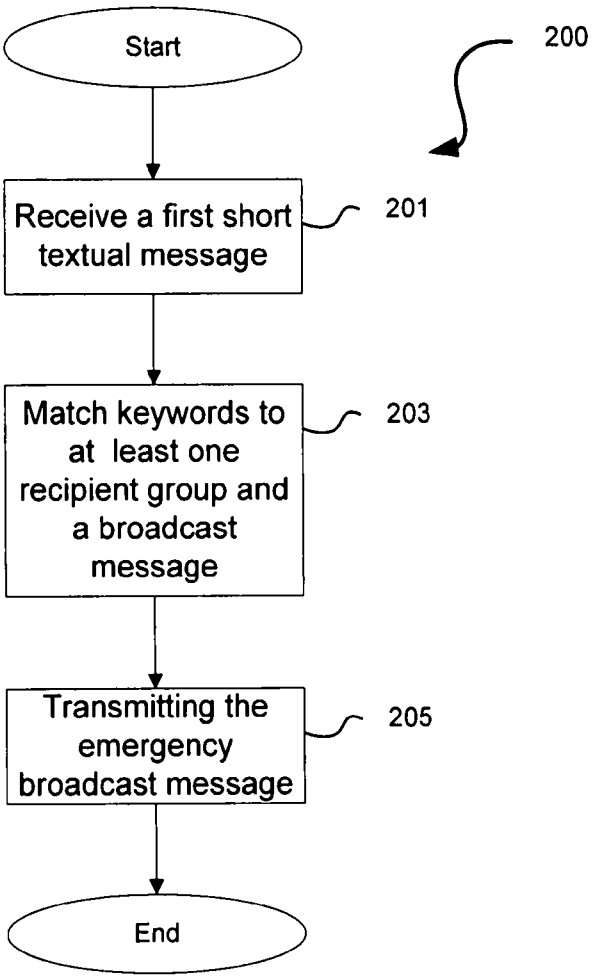

Fig. 2

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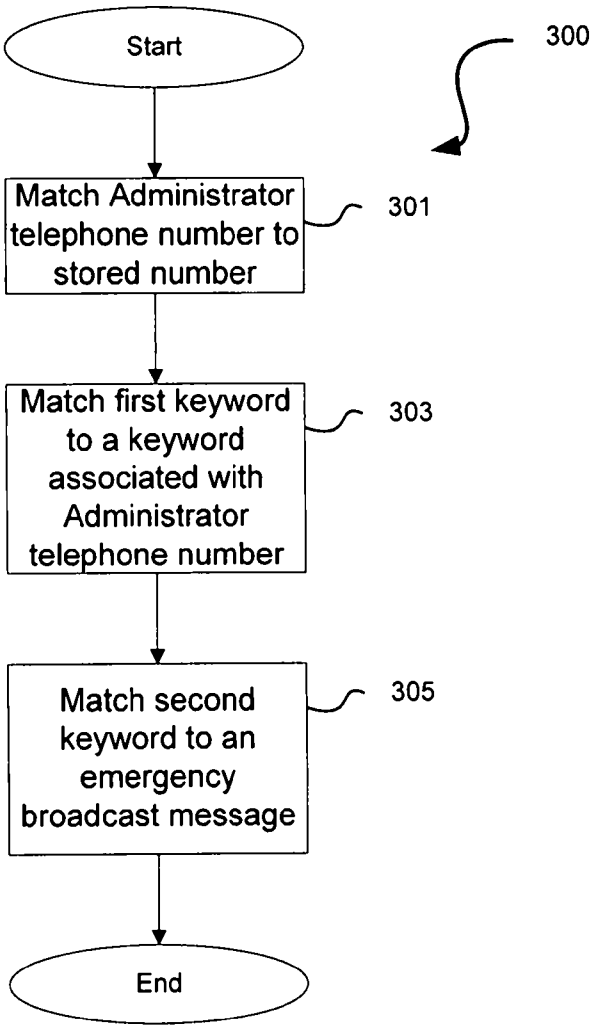

Fig. 3