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(54) **WIRELESS MESSAGING SYSTEMS AND METHODS**

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part of application No. 08/934,143, filed on Sep. 19, 1997, now Pat. No. 6,233,430, which is a continuation-in-part of application No. 08/933,344, filed on Sep. 19, 1997, now Pat. No. 6,253,061, which is a continuation-in-part of application No. 08/934,132, filed on Sep. 19, 1997, now Pat. No. 6,087,956, which is a continuation-in-part of application No. 08/934,337, filed on Sep. 19, 1997, now Pat. No. 6,259,892, which is a continuation-in-part of application No. 08/989,874, filed on Dec. 12, 1997, now Pat. No. 6,097,941.

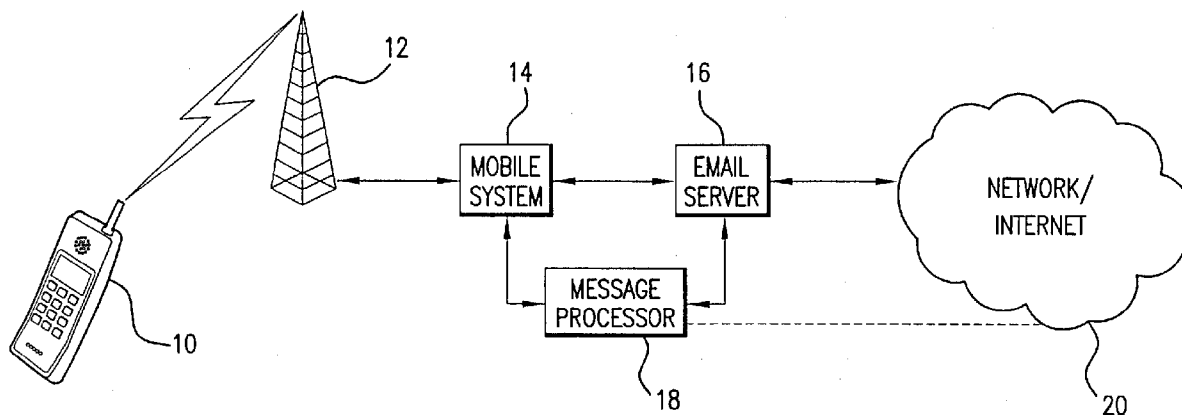
(60) Provisional application No. 60/155,055, filed on Sep. 21, 1999, provisional application No. 60/126,939, filed on Mar. 29, 1999.

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(57) **ABSTRACT**

A messaging system for selectively performing an action on information, for remote retrieval of messages, for performing action on information at different times, for selective paging, for providing a user interface for message access and having integrated audio visual messaging.



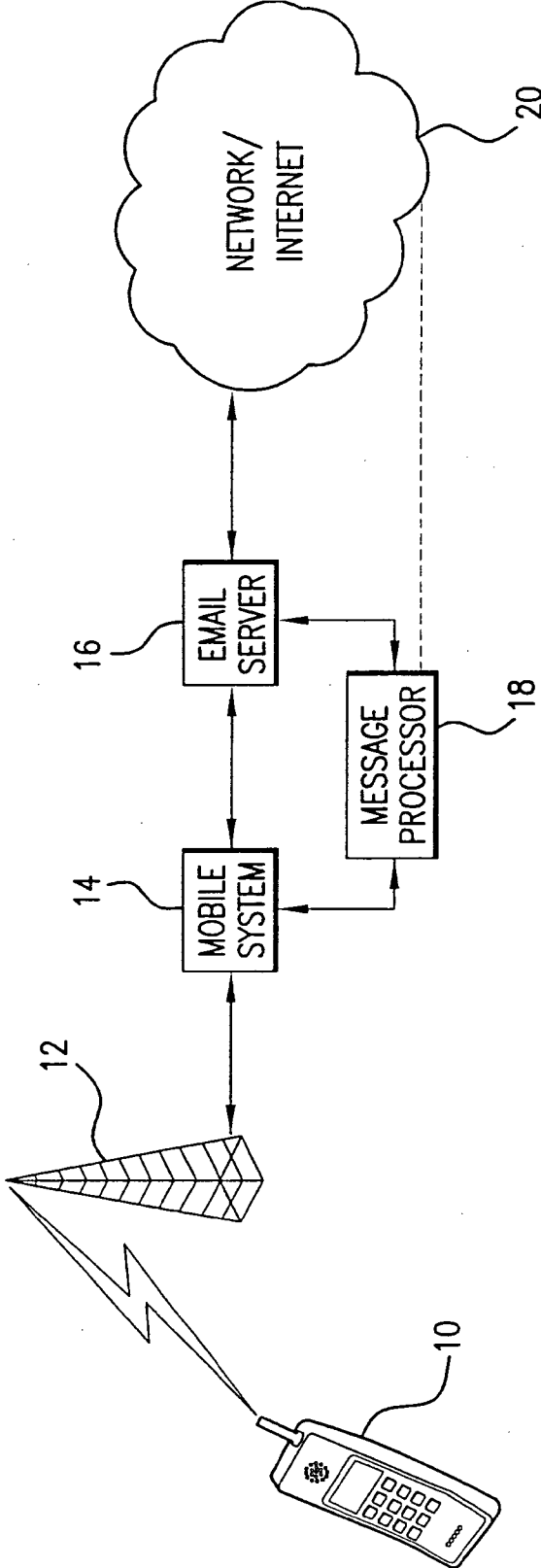


FIG. 1

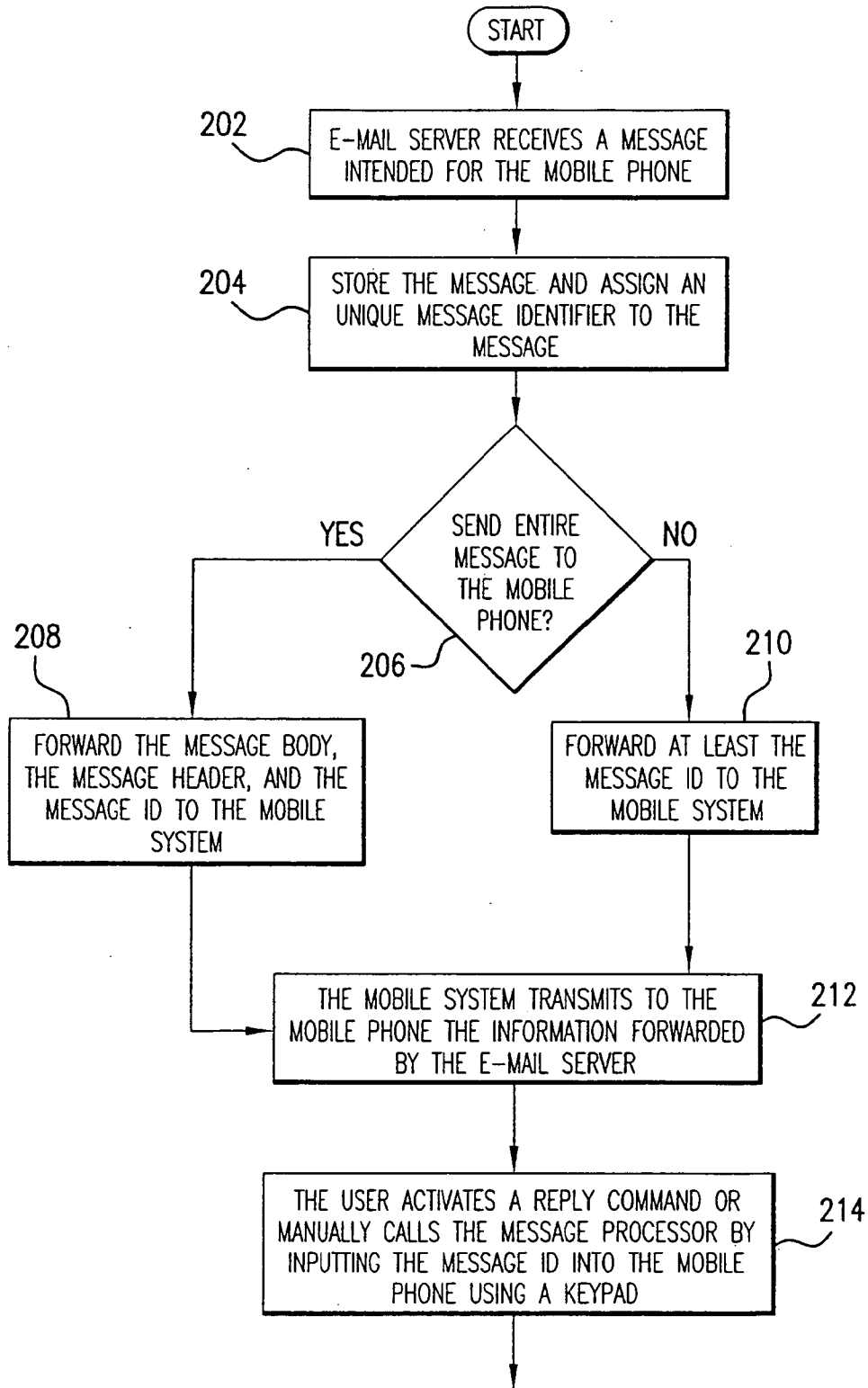


FIG.2A

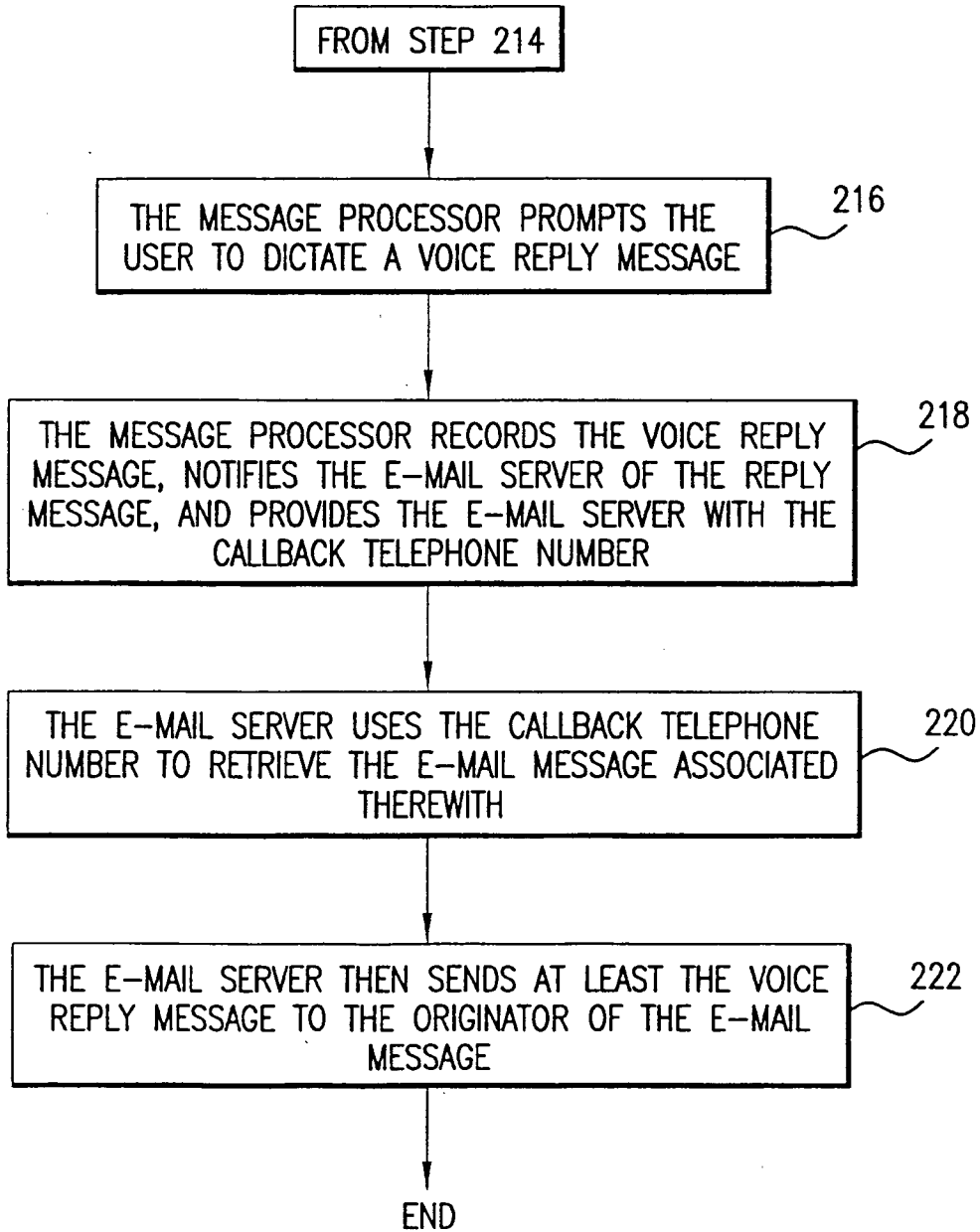


FIG.2B

WIRELESS MESSAGING SYSTEMS AND METHODS

[0001] This application is a continuation-in-part of U.S. application Ser. No. 09/408,841, filed Sep. 30, 1999 (status: Pending), which claims the benefit of U.S. Provisional Application No. 60/155/055, filed Sep. 21, 1999 and U.S. Provisional Application No. 60/126,939, filed Mar. 29, 1999; this application is also a continuation-in-part of U.S. application Ser. No. 08/934,143, filed Sep. 19, 1997 (status: Pending), U.S. application Ser. No. 08/933,344, filed Sep. 19, 1997 (status: Pending), U.S. application Ser. No. 08/934,132, filed Sep. 19, 1997 (status: Pending), U.S. application Ser. No. 08/934,337, filed Sep. 19, 1997 (status: Pending), and U.S. application Ser. No. 08/989,874, filed Dec. 12, 1997 (status: Pending). All of the above mentioned applications (provisional and non-provisional) are incorporated in their entirety herein by this reference.

BACKGROUND OF THE INVENTION

[0002] The present invention relates to wireless messaging devices such as two-way pagers, wireless telephones and personal digital assistants (PDA's) and, electronic media systems such as, electronic mail systems, electronic commerce systems and storage and retrieval systems. More specifically, the present invention relates to two-way wireless email devices and associated systems.

SUMMARY OF THE INVENTION

[0003] An object of the invention is to provide a messaging system for selectively performing an action on information, for remote retrieval of messages, for performing action on information at different times, for selective paging, for providing a user interface for message access and having integrated audio visual messaging.

[0004] Another object of the invention is to provide a method and system for wireless retrieval of an email attachment such as an audio or video file.

[0005] Another object of the invention is to provide a system for allowing a wireless device to retrieve a portion of or an entire email from one or a plurality of email systems.

[0006] It is yet another object of the invention to provide direct access to one specific or a plurality of specific email messages without having to retrieve or access other email messages.

[0007] Another object of the invention is to provide a messaging system that delivers messages or message notifications to a specific device, based on a variable such as: the "presence" of the user (i.e., whether the user has turned on his/her device), the location of the device, the device being accessed, the importance level of the message, the type of message, the time or date, the weather, a user action, or a user request.

[0008] It is still another object of the invention to provide automatic identification of a wireless mobile phone user or wireless email device and a mobile phone user's reply email message destination by utilizing a phone number or code.

[0009] It is yet another object of the invention to provide an improved method for memory management in a messaging device.

BRIEF DESCRIPTION OF THE DRAWINGS

[0010] The accompanying drawings and above identified pending patent applications, which are incorporated herein, form a part of this specification together with this description and serve to explain the principles of the invention and to enable a person skilled in the pertinent art to make and use the invention.

[0011] FIG. 1 is a block diagram of a wireless messaging system.

[0012] FIGS. 2A and 2B is a flowchart illustrating a process of replying to a message.

DESCRIPTION OF THE INVENTION

[0013] For the purpose of illustration only, a wireless mobile telephone will be used as an exemplary wireless messaging device. However, it should be understood that other messaging devices, such as pagers, wireless PDA's and the like, are also contemplated. A wireless mobile telephone, hereinafter mobile phone, is configured to receive text messages and message alerts. The mobile phone may be configured to receive Short Messaging Service (SMS) email messages or the mobile phone may have a Web Browser for accessing an Internet based email service. An email server receives an email message intended for a specific mobile telephone. An email message includes a message body and a message header. The message header usually includes various fields, such as a To field, a From field, and a Subject field. The message header also may include a Message Type field and other information common in email messages.

[0014] The email server assigns a message identifier (ID) to the message and, in one embodiment, forwards the entire message and the message ID to a mobile system for transmission to the targeted mobile phone. Alternatively, the email server may send to the mobile system just an alert, the From field, and/or the Subject field, but not the entire message. Depending on what was transmitted to the mobile system, the mobile phone user may read the entire message, read whom the message was from, read the message subject or read the message ID. Whether the entire message or just part of the message header was transmitted to the mobile phone, the mobile phone user may choose to reply to the message. To reply to the message, the user may simply press a button to automatically transmit to the mobile system information that identifies the mobile phone user and the message to which the user is replying. The mobile phone user may be identified by the mobile phone's mobile identification number (MIN) or by data associated with the received message, such as the message ID described above. Similarly, the message to which the user is replying may be identified by the message ID. In one embodiment, the message ID is a reply code (i.e., a short string of letters and/or numbers, such as 1234). Alternatively, the message ID is a telephone number (or pseudo telephone number) that is associated with a message processing system. For example, the email server may assign a callback telephone number to a specific message. Upon receiving the message and callback number, the mobile phone user may simply activate the reply mode causing the callback number to be transmitted for identifying the mobile phone user and or the specific message being replied to FIG. 1 illustrates the messaging system 100 described above and FIGS. 2A and 2B illustrate the steps performed by the components of system 100 when a mobile phone 10 user replies to an email message with a voice message. First, the email server 16 receives the

email message from the Internet **20** or from another source (step **202**). The email server **16** stores the message and assigns a message identifier (ID) to the email message (step **204**). The message ID may take any number of forms as previously described but for the purpose of example, the email server assigns to the message a telephone callback number (e.g., 202-555-1212) or pseudo telephone number (e.g., #71 or #112).

[0015] Next, the email server **16** determines whether it should send to the mobile phone **10** the entire email message or just part of the message (for example, one or more fields of the message header) (step **206**). This determination can be based on a user profile that is stored at the email server **16**, or maybe specified by the user for one or a particular group of email messages. Thus, some users may create a profile that specifies that they want to receive the entire message, whereas other users can specify that they don't want to receive the entire message and can specify which portions of the message they do want to receive. If the entire message should be sent, then the entire message plus the callback number generated in step **204** is forwarded to the mobile system **14** (step **208**). If the entire message should not be sent, then the email server **16** forwards, at the least, the callback number generated in step **204** to the mobile system **14** (step **210**). The mobile system **14** comprises a message center, a call switching center, and transceiver circuitry necessary for transmitting information to the antenna **12** and the mobile phone **10**. The mobile system **14** then transmits to the mobile phone **10** the information forwarded by the email server **16** (step **212**).

[0016] Upon receiving at the mobile phone **10** the information forwarded by the email server **16**, which at the least includes a callback number, the user may choose to send a reply message to the originator of the email message (step **214**). The user can accomplish this by activating a reply command. Upon activating the reply command, the mobile phone automatically places a call to the callback number. Alternatively, instead of activating the reply command, the user may manually call the callback number by entering the callback number using a keypad on the mobile phone **10**, or by speaking the callback number into the receiver of the mobile phone **10**.

[0017] In one embodiment, all of the callback numbers generated by the email server are associated with message processor **18**, thus upon placing the call to the callback number, the mobile system **14** routes the call to the message processor **18**, which then answers the call. The message processor **18** may comprise a voice store and forward system for receiving voice and forwarding voice messages. Voice store and forward systems are readily available and are commonly configured to communicate with networked systems such as the email server **16**. The email server **16** communicates with the message processor **18** for establishing a temporary mailbox associated with a specific callback number, which was assigned to a message.

[0018] When the message processor **18** receives a call directed to a specific callback number, the message processor **18** prompts the mobile phone user to dictate a reply message for the specific recipient identified by header information contained in the original message (step **216**). The message processor **18** records the voice reply message, notifies the email server **16** of the voice message, and provides the email server with the callback telephone number that the user dialed (or that the mobile phone **10** automatically dialed in response to the user activating the reply command) (step **218**).

[0019] The email server **16** uses the callback telephone number to retrieve the email message associated therewith (step **220**). The email server **16** then transmits to the originator of the email message associated with the callback telephone number at least the voice message recorded by the message processor **18** (step **222**). In one embodiment, only the voice message is transmitted, in other embodiments, the voice message plus the email message associated with the callback number are transmitted.

[0020] The message processor **18** may be replaced with another type of processor depending on the media type. For example, instead of utilizing a voice message processor, a video message processor may be utilized in a broadband system for sending video messages from a mobile phone.

[0021] Messages sent from the email server may be transported over the Internet **20** or a private network. The mobile system **14**, email system **16** and message processor **18** may be directly connected or they may be connected via a network such as the Internet or the public switched telephone network.

[0022] As described above, a mobile phone user may reply to messages that were not transmitted in their entirety to the mobile phone **10**. In one embodiment, a mobile phone user might receive only a name for identifying the message originator and/or a subject but not the body of the message. Such would be the case in a system that allows the mobile phone user to decide which messages should be transmitted. In the case where the user does not receive the entire message, the mobile phone user could reply to the originator of the message stating, "I will attend to your message when I return to the office." Optionally, the mobile phone user could read the subject matter and then send a request message to the email server **16**, which causes the email server to transmit the entire message or the remainder of the message. Lastly, a mobile phone **10** equipped with a web browser may connect to an Internet based mail system for reading messages. A reply code, callback number or message code may be embedded in the internet mail based message, thereby enabling a mobile phone user to reply to a specific message as described above.

[0023] A significant feature of the present invention described above is the ability to "directly access" a specific message from the mobile phone **10** for replying to or for performing an action thereon. Each message transmitted to or accessed from the mobile phone **10** has a message ID associated therewith. A mobile phone user (for example) may reply to a message, delete a message from the email server **16** without retrieving the entire message, forward a message and retrieve a message. The user may also mistakenly delete a message stored in the mobile phone **10** and then retrieve it again from the email server **16**. Unlike prior art email and voice mail systems, the present invention provides for direct access of remotely stored messages for retrieval and for performing an action associated therewith, as is described in the above mentioned related U.S. patent application Ser. Nos. 08/934,143, 08/933,344, 08/934,132, and 08/934,337. The invention of FIG. **1** is shown configured with one email server **16** and one message processor **18**. However, multiple email servers **16** and or message processors **18** may be configured in the system, for example, via network connection, direct connect, or the Internet. This approach, when used in conjunction with the email industry standard POP3 mail, allows the mobile phone user to access email from a plurality of email systems.

[0024] Any email server **16** may send message alerts, header information, message codes, subject matter, or the

body of a message to the mobile system **14** for transmission to the mobile phone **10**. Alternatively, the email server **16** and or the message processor **18** (shown in FIG. **1**) may act as a master system for communicating with the mobile system **14** and slave email servers **16** and or slave message processors **18** may be configured to communicate with the master email server **16** and or a master voice processor **18** for communicating with the mobile phone **10**.

[0025] As previously stated, a mobile phone user may receive any part of the message or the entire message. While some mobile phone users may decide to have the system alert them and automatically deliver the entire message, other mobile phone users (power users) may wish to be alerted and automatically receive only the sender's name and the subject of the email message. The mobile phone user may then decide to retrieve the message, delete the message, forward the message or reply to the message. The present invention provides the mobile phone user direct access to and remote control of email messages regardless of where the email messages reside.

[0026] The mobile phone **10** can originate email messages by utilizing an address book or by direct entry of an address or an abbreviated address. The address book may be stored in the mobile phone **10**, on the email server **16** or in the message processor **18**. The mobile phone user may simply select a name from the mobile phone's **10** address book, activate a send message command and send a message to the message processor **18** for delivery to the email server **16** and finally to the addressed destination as previously described.

[0027] In another embodiment, the mobile phone user may enter the address manually or enter an abbreviated address associated with the actual address stored on the email server **16** and or the message processor **18**. In another embodiment, the mobile phone user may utilize a mobile phone **10** that has Internet access capability such as the so-called "smart phones". Upon accessing the Internet, the mobile phone user may access an Internet based email system such as Hot Mail, Yahoo Mail and the like. The Mobile phone user may then choose a message to read, reply to a message or select a name from an address book for originating a message. The user then selects a send command for sending a message (digital, analog, or other) to the Internet based email system or the email server **16**. The selected address book entry may contain addressing information for identifying a particular email server or message processor. Upon the mobile phone user's selection of a message recipient, the mobile phone **10** connects to the identified email server **16**, message processor **18**, or another system for delivering the email message. An email message may also be routed to a particular system based on the type of email message. For example, a voice message may be directed to a voice message processor and a text message may be directed to an email server. The mobile phone **10** may connect to the Internet for sending a message or a phone call may be placed to the message processor **18**. Alternatively, a mobile phone user may indicate to an email server that he/she wishes to send a message, such as a voice message, to a particular destination. The email server then informs the message processor **18** that the specific mobile phone user wishes to send a message. The message processor then places a call (or connects) to the mobile phone **10** and prompts the mobile phone user to record a message as previously described.

[0028] The present invention provides for receiving an email message that has an attachment (i.e., an attached file). The mobile phone **10** does not need any special modifications

to receive a text message and for example a voice attachment (i.e., the attached file contains a voice message). When a mobile phone **10** receives a text message having an attachment associated therewith, the mobile phone user may receive all or a portion of the text message, header information, an alert, and a message code which identifies the attachment. To hear the voice message attachment, delete the voice message, reply to the originator of the voice message, or forward the voice message to other people, the mobile phone user simply places a call to the message processor **18**, enters the message code that identifies the attachment using a keypad (or if the message processor **18** has voice recognition capability, simply speaks the message code), and enters a code corresponding to an action or speaks a command, such as reply, delete, forward, save, etc. The message processor **18** performs the command.

[0029] That is, the message processor **18**, upon receiving a call from a mobile phone user, may be configured to identify the mobile phone user utilizing the industry standard caller ID. After identifying the mobile phone user, the message processor prompts the mobile phone user to enter the message code associated with the received message for retrieving the corresponding voice attachment. The voice message file corresponding to the message code is then accessed by the message processor **18**. The message processor **18** then plays the message to the mobile phone user over the telephone connection so that the mobile phone user can hear the attachment.

[0030] In this manner, unlike prior art voice mail systems, the present invention provides direct access to a specific message. The mobile phone user need not scroll through a large number of messages in order to locate a specific message.

[0031] Upon accessing a message file, the message processor **18** allows the user to erase the message, forward the message, or record a reply for the voice message originator. In another embodiment, the mobile telephone may be configured to automatically transmit a message code to a specific message processor as previously described. The main difference between a message code for retrieving a voice attachment and a reply code is that a message code for retrieving a message directs the message processor to play the message while a reply code directs the message processor **18** to record a reply message.

[0032] Voice attachments may be retrieved manually by entering a message code or automatically. The mobile phone user may place a call directly to a specific message processor **18** or the call may be automatically directed to a specific message processor that corresponds to a received system identification code or the call may be directed to a specific telephone number associated to the mailbox within the message processor **18** where a specific message resides.

[0033] The mobile phone user may additionally access a voice message by accessing a web based email system with a browser-enabled mobile phone **10**. The web based email server may supply the message code and upon a mobile phone user activating a retrieve command, the mobile phone **18** places a call to a message processor **18**. Alternatively, the web based email server may notify the message processor **18** and the message processor **18** then connects with (or calls) the mobile phone **10** and plays the message to the mobile phone user. The message processor **18** is adapted to play an analog voice file or a digital voice file. The voice message may be streamed to the mobile phone **10** for real time reproduction or the voice file may be transferred to the mobile phone **10** for storage in a memory device within the mobile phone **10**. The

message is not limited to an analog or digital voice message but may include streaming video or other multimedia content.

[0034] It has been clearly shown that an email text message and an attachment may be received or retrieved by the mobile phone **10**. Email messages may be sent to the mobile phone **10** from a number of devices such as for example, a computer with Internet access to a web based email system or from a computer utilizing an email program. The present invention additionally provides for sending email messages from a mobile phone **10** to another mobile phone **10** (i.e. mobile-to-mobile) or to itself (i.e. memo mode). A mobile originated voice message may be recorded and addressed by a mobile phone user to a targeted mobile phone **10**. The difference between sending a message to a computer or to a mobile phone **10** is simply the address. The present invention makes it possible to communicate two-way email, including attachments between a computer and a mobile phone and between mobile phones. Mobile phone users need not scroll through messages to access a specific message. Messages may be directly accessed for performing an action thereto. A mobile phone user may simply select a destination address, activate a send message command and record a voice email for any targeted destination. A mobile phone user may activate a reply command and record a voice email that is automatically or manually addressed to a message originator. Messages may be automatically received, manually retrieved, replied to, forwarded, deleted, originated and reproduced by the mobile phone **10**. The need for a mobile phone to have browser capability for accessing the Internet to communicate two-way email is eliminated.

[0035] As previously stated, the present invention may be configured to deliver entire text email messages to a mobile phone **10** or just a portion of the message, such as the name of the originator and/or the subject. Additionally, a message may be received from the email server **16** on demand by the mobile phone **10**. A mobile phone user may automatically receive a name and subject information but may not wish to automatically receive the entire message. After the mobile user reviews the received names and associated subjects, the mobile phone user may decide to retrieve the remainder of the message or the entire message.

[0036] A message may be deleted from the mobile phone **10** but it may be again retrieved from the email server **10**, if the message is still stored on the email server **10** as previously described. The ability to retrieve a specific message on demand allows for new and improved features for the mobile phone **10**, a paging device or other types of wireless email and messaging devices.

[0037] One such feature of the present invention is an improved memory management arrangement and method for automatically deleting messages stored in a mobile phone or messaging device when the device's memory is full. For example, prior art paging devices have a limited amount of memory for storing messages. There are times when the memory is full of messages and new messages cannot be received and stored. Other paging devices automatically delete the oldest read message in order to make room in memory for a newly received message. These prior art devices and methods have a disadvantage because once a message is deleted or over written, it cannot be recovered. The present invention provides a system for deleting messages when memory is full but the deleted or over written messages

may be again received and stored by the mobile telephone **10** as will be described hereinafter.

[0038] The mobile phone **10** may be configured so that an internal processor executes the following process: Receive and store messages in memory. When a message is received and memory is full, over write one or more message bodies, but retain the message header and the message ID associated with the message, to make room for the new message. Store the new message. When over writing message bodies, over write the oldest read message body first, when there are no read message bodies left, over write the oldest unread message body. When there are no more message bodies, over write the oldest read subject first. When there are no more read subjects, over write the oldest unread subject. The mobile phone **10** may be configured to delete the name and header information using the same priority as described above. The above-described process causes the mobile phone **10** to over write only message bodies when there is not enough memory to store an additional message. The mobile phone user may continue to save and view information that identifies the message originator (the name) and information describing the message (the subject). If the mobile phone user desires to read an entire message body that was deleted or over written, a retrieve command may be activated by the mobile phone user for causing the mobile phone **10** to transmit the selected message ID to the email server **16**. Upon receiving the retrieval request and message ID, the email server **16** sends the email message corresponding to the message ID to the requesting mobile phone **10**. An over written or deleted message can now be recovered.

[0039] The present invention provides for sending and receiving messages based on one or more variables. The email server **16** and the message processor **18** may be configured with Instant Messenger software such as is provided by Microsoft, America On Line, AT&T and others. These programs provide notification when a computer-messaging device is on line or the operator is logged in. When the message processor **18** or email server **16** receives a message for the mobile phone **10**, the message may be held until the mobile phone is on line. In other words, when the user is logged in or when the presence of the user is detected, the message is delivered. Conversely, when a message is sent to a mobile phone **10**, the message may be held by the email server **16** or the message processor **18** until the presence of the mobile phone **10** or the mobile phone user is detected. Detection of the mobile phone **10** may for example be accomplished by interfacing a home location register (HLR) to the email server **16** and the message processor **18**. HLR equipment is readily available and used extensively by mobile phone companies to provide detection of a mobile phone in a particular service area in order to route calls. Detection of a mobile phone user may also be accomplished by detecting user-activated commands that are transmitted to the email server **16** or the message processor **18**. Detection of an operator, mobile phone user or active messaging device enables the present invention to perform actions responsive to the status of messaging devices or the presence of their respective user. The email server **16** may automatically route messages to a mobile phone **10** when the mobile phone user is utilizing the mobile phone **10**. Then, when the mobile phone user turns the mobile phone **10** off and logs in to an office computer, the email server routes messages to the office computer. The present invention may perform any number of actions or combination of actions based on a mobile phone user acti-

vated command or by automatically detecting the status of the mobile phone **10** and or the presence of the mobile phone user. Messages may even be redirected automatically to a mobile phone user's computer email service if the message cannot be delivered to the mobile phone **10** because the mobile phone **10** was out of range or turned off.

[0040] The email server **16** and the message processor **18** may automatically perform an action or sequence of actions based on the time of day, the date, the status of a mobile phone **10**, the presence of a user, user activity, geographic location of the mobile phone **10** or any number of conditions which may be transmitted to the email server **16** or the message processor **18**. Sensors may be added to the mobile phone **10** and data from the sensors may be automatically transmitted or manually sent by the mobile phone user. A temperature sensor, for example, may be included in the mobile phone **10** wherein temperature readings are automatically transmitted to the email server **16**. Based on temperature, the location of the mobile phone **10** and the presence of the mobile phone user, the email server **16** or the message processor may for example send an email message to the mobile phone user that includes an advertisement stating, "The temperature is 98 degrees. Please drink Coke. 35 cent special one block away at the super store." Alternatively, the mobile phone user may configure the present invention so that messages from particular people are delivered to the mobile phone **10** on week days between 9:00 am and 5:00 pm but otherwise routed to the mobile phone user's home computer and have copies of all message activity go to an office email system. Messages may also be filtered based on the location of the mobile phone **10** so that very important messages are routed to the mobile phone **10** when the mobile phone user is out of town with the mobile phone **10**. A mobile phone user may also configure the system to send a notification message to the mobile phone **10** when another mobile phone **10** user or a computer device user is detected by the email server **16** or the message processor **18**.

[0041] The present invention may be utilized in telephone systems, paging systems, email systems, and numerous communications systems.

1-105. (canceled)

106. A method that indicates presence of a first cell phone on a cellular network to a second cell phone comprising:

- (a) detecting that the first cell phone is present on the cellular network; and
- (b) reporting to the second cell phone that the first cell phone is present on the cellular network.

107. The method of claim **106** wherein detecting that the first cell phone is present on the cellular network comprises determining the status of the first cell phone using a home location registry (HLR).

108. The method of claim **106** wherein detecting that the first cell phone is present on the cellular network comprises determining that the first cell phone logged onto an internet messaging service.

109. The method of claim **106** further comprising the first cell phone enabling a setting that allows the user's presence on the cellular network to be detected by the second cell phone.

110. The method of claim **106** further comprising the cell phone instructing a remote message processor to inform other devices of its online presence.

111. The method of claim **106** further comprising sending a message from the first to the second cell phones upon detecting that the first cell phone is present on the cellular network.

112. The method of claim **111** wherein the message comprises multimedia information.

113. A method that reports presence of a wired computer online to a cell phone comprising:

- (a) detecting the presence of the wired computer online; and
- (b) generating a signal indicating that the wired computer was detected online;
- (c) using the signal to report to the cell phone that the wired computer was detected online.

114. The method of claim **113** wherein detecting the presence of the wired computer online comprises detecting that the wired computer signed into an internet messaging service.

115. The method of claim **113** further comprising the wired computer enabling a setting that allows the presence of the wired computer online to be detected by the cell phone.

116. The method of claim **113** further comprising sending a message between the wired computer and the cell phone upon detecting the presence of the wired computer online.

117. The method of claim **116** further comprising sending the message at the request of the cell phone.

118. The method of claim **116** wherein the message comprises multimedia information.

119-182. (canceled)

183. A content communication system, comprising:

- a. a memory configured to store content;
- b. a first memory controller including a processor coupled to the memory configured to cause a paging call comprising a notification of content to be directed to a cellular phone,
- c. wherein the paging call includes an address identifier that identifies the cellular phone, a content identifier that identifies the content and the content's location, the content identifier configured to be displayed by the cellular phone, and a type identifier that identifies the content's type;
- d. wherein a second memory controller, that is coupled to the memory, is configured to direct the content corresponding to the content identifier from the memory to the cellular phone only upon receiving a request from the cellular phone to do so.

184. The system of claim **183** wherein the paging call comprises a Short Message Service ("SMS") message.

185. The system of claim **183** wherein the content comprises video.

186. The system of claim **183** wherein the paging call is caused to be directed to the cellular phone via a global system for mobile communications ("GSM") network.

187. The system of claim **183** wherein the notification includes descriptive text related to the content.

188. A method that communicates data from a content provider through a mobile radiotelephone network to a wireless communication device, utilizing a content notification system having an interface with a home location registry comprising:

- the content provider initiating a paging call that communicates a notification of data to the wireless communication device, the notification including an information identifier that corresponds to the data stored by the content provider and identifies the location of the stored

data, wherein the data is not included in the notification and is not stored in the wireless communication device; the content provider receiving a request message that is wirelessly transmitted from the wireless communication device over the mobile radiotelephone network directly or through another system; and the request message including a request to receive the data.

189. The method of claim **188** wherein the paging call comprises a Short Message Service (“SMS”) message.

190. The method of claim **188** wherein the paging call further includes descriptive text relating to the data.

191. The method of claim **190** wherein the descriptive text identifies the content sender.

192. The method of claim **188** wherein the data comprises an advertisement.

193. The method of claim **188** wherein the data comprises video.

194. The method of claim **188** wherein the notification is configured to be displayed on a cellular phone.

195. A system, comprising:

a. a storage unit that stores information for transmission to one or more devices;

b. a transmitter coupled to the storage unit that transmits a notification, the notification causing a selective call signal comprising an information identifier identifying the information and an acknowledgment request to be transmitted at least one of the one or more devices, wherein the information is not included in the selective call signal;

a receiver coupled to the storage unit that receives a request transmitted from any one of the one or more devices, wherein the request is transmitted via a cellular data network and

the request identifies the information and an action to be performed on the information; and

a processor configured to perform the action.

196. The system of claim **195** wherein the information comprises video.

197. The system of claim **195** wherein the information comprises an advertisement.

198. The system of claim **195** wherein the notification or information identifier is configured to be displayed on a cellular phone.

199. The system of claim **195** wherein the notification or information identifier includes descriptive text related to the content.

200. A mobile wireless device comprising:

a radio receiver including an antenna, the radio receiver configured to receive a selective call signal initiated by a remote system that includes: (i) an identifier of remotely stored information and (ii) a system address of a system to be contacted to trigger retrieval of the remotely stored information;

memory coupled to the radio receiver configured to store the identifier and system address;

a radio transmitter coupled to the memory configured to transmit a signal that includes at least a portion of the identifier and system address;

the radio receiver further configured to receive the information corresponding to the identifier and system address following a request to receive the information;

the memory further configured to store the information corresponding to the identifier and system address; and

the memory further configured to retain the identifier and system address upon the information being deleted by the mobile wireless device.

201. The mobile wireless device of claim **200**, wherein the radio transmitter is further configured to transmit a signal that includes at least a portion of the identifier and system address again.

202. The mobile wireless device of claim **200**, wherein the system to be contacted to trigger retrieval of the remotely stored information comprises a system other than the storage system storing the information.

203. A method that provides a cell phone a notification of a message that is available for download from a content storage and retrieval system, wherein the content storage and retrieval system is coupled to a paging terminal, the method comprising:

(a) receiving the message from a sender and storing the message at the content storage and retrieval system;

(b) causing the notification to be sent to the cell phone, the notification including an information identifier, the location of the content in the content storage and retrieval system, and an indication of the priority of the content from among a plurality of priorities.

204. The method of claim **203** wherein the priority indicated in the notification is determined, at least in part, according to preferences indicated by a user of the cell phone and which preferences were received from the cell phone at the content storage and retrieval system.

205. The method of claim **203** wherein the paging terminal generates the notification in response to the message being stored at the content storage and retrieval system and sends the notification to the cell phone.

206-212. (canceled)

213. A cell phone configured to disable transmissions of response signals, comprising:

(a) the cell phone configured to determine if it is allowed to transmit response signals;

(b) if it is determined that it is not allowed to transmit response signals, then the cell phone being configured to not transmit response signals while the cell phone remains powered on.

214. The cell phone of claim **213** wherein the cell phone is configured to determine, by checking a user-selectable setting of the cell phone, if it is allowed to transmit response signals.

215. A method that automatically performs an action in a cell phone in response to receiving a notification of a message comprising:

(a) receiving input regarding (i) a message parameter for the cell phone to monitor for a specific condition and (ii) an action to be performed on the message when the specific condition of the message parameter is detected; and

(b) performing the action on the message when the message parameter meets the specific condition.

216. The method of claim **215** wherein the message parameter comprises a message type, and the action comprises automatically forwarding the message.

217. The method of claim **215** wherein the message parameter comprises a message sender, and the action comprises automatically forwarding the message.

218. The method of claim **215** wherein the message parameter comprises a message source and the action comprising automatically forwarding the message.

219. The method of claim **215** wherein the received notification indicates a time that a message is available for downloading.

220. The method of claim **219** wherein the action comprises automatically downloading the message at a time indicated by the notification.

221. The method of claim **219** wherein a remote message system specifies the time that the message is available for downloading.

222. A method that delivers content to a cell phone comprising:

- (a) sending a notification that the content is available for delivery to the cell phone, the notification including: (i) information identifying the content, and (ii) a system address indicating a system to be contacted to trigger retrieval of the content;
- (b) receiving a request from the cell phone to retrieve the content; and
- (c) thereafter, causing at least a portion of the content to be transmitted to the cell phone.

223. The method of claim **222** wherein the content comprises video information.

224. The method of claim **222** wherein the content comprises multimedia information.

225. A method of sending content to a mobile phone comprising:

- (a) causing an initial notification to be sent to a mobile phone by paging call, the notification including an address identifier providing an identification of an address of a system to which a request to deliver the content be sent, the address identifier configured for display on the mobile phone and such that a user of the mobile phone can select the address identifier and thereby request delivery of the content; and

- (b) causing the content to be delivered to the mobile phone in response to a request for delivery of the content from the mobile phone.

226. The method of claim **225** wherein the notification further includes retrieval instructions comprising a designated time the content is available.

227. The method of claim **225** wherein the address identifier comprises an address of an internet-accessible system.

228. The method of claim **225** wherein the address identifier provides an identification of an address of a system other than the system sending the notification.

229. The method of claim **225** wherein the notification further includes information about the subject of the content.

230. The method of claim **225** wherein the notification further includes the name of the originator of the content.

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