US 20040267884A1

(19) United States

(12) Patent Application Publication (10) Pub. No.: US 2004/0267884 A1

Sar-Shalom (43) Pub. Date: Dec. 30, 2004

(54) AUTOMATIC MESSAGING CLIENT LAUNCHER FOR A COMMUNICATION DEVICE

(75) Inventor: **Yaron Sar-Shalom**, Ramat Yishay (IL)

Correspondence Address:
SUGHRUE MION, PLLC
2100 PENNSYLVANIA AVENUE, N.W.
SUITE 800
WASHINGTON, DC 20037 (US)

(73) Assignee: **COMVERSE, LTD.**

(21) Appl. No.: **10/608,230**

(22) Filed: **Jun. 30, 2003**

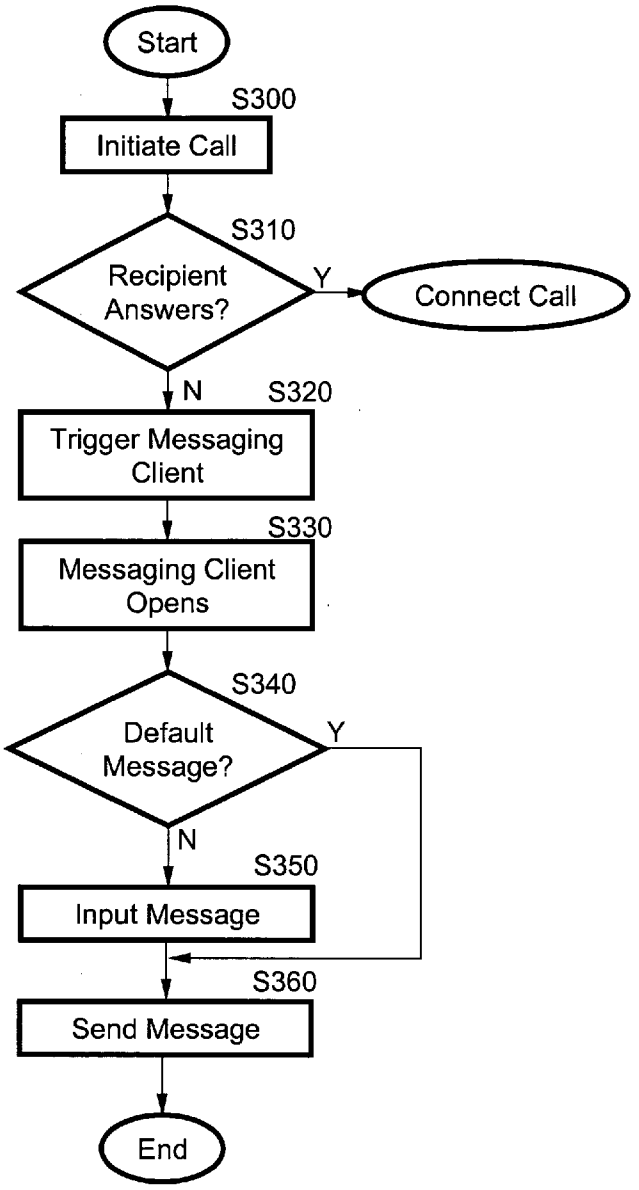
Publication Classification

(51) **Int. Cl.**[7] **G06F 15/16**; G06F 15/173

(52) **U.S. Cl.** **709/206**; 709/224

(57) **ABSTRACT**

An automatic messaging client launcher for a communication device automatically launches the communication device's messaging client, when the device is calling a currently unavailable destination communication device. The automatic messaging client launcher consists of an availability detector and a messaging initiator. The availability detector determines if the communication device being called is available. If the destination device is unavailable, the messaging initiator launches the messaging client.



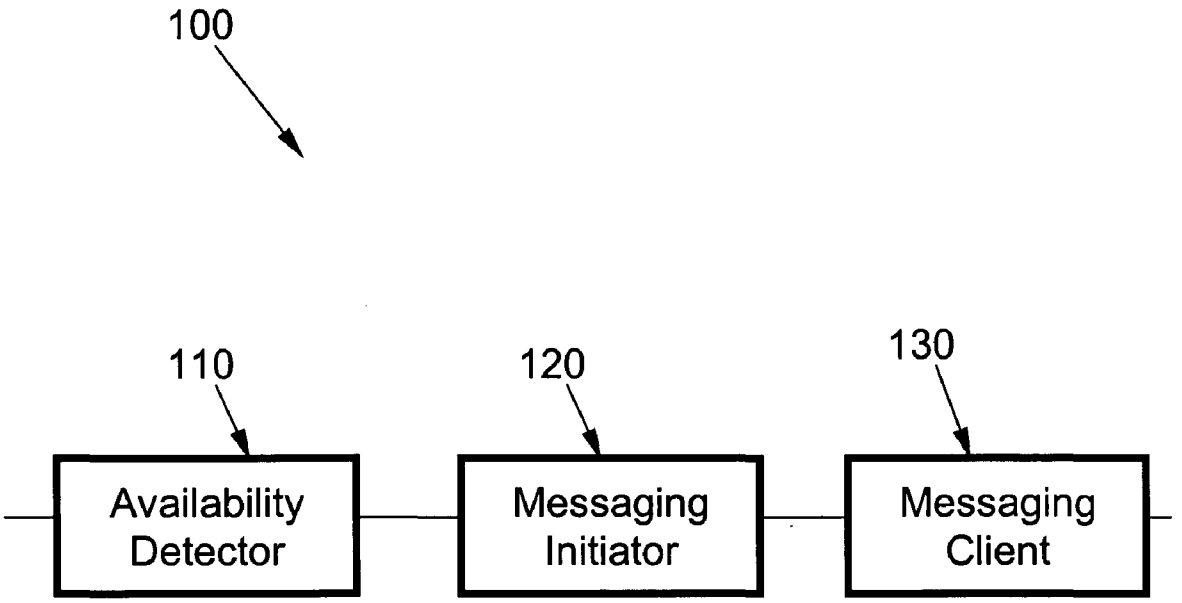

100
110
120
130
Availability Detector
Messaging Initiator
Messaging Client

FIG. 1

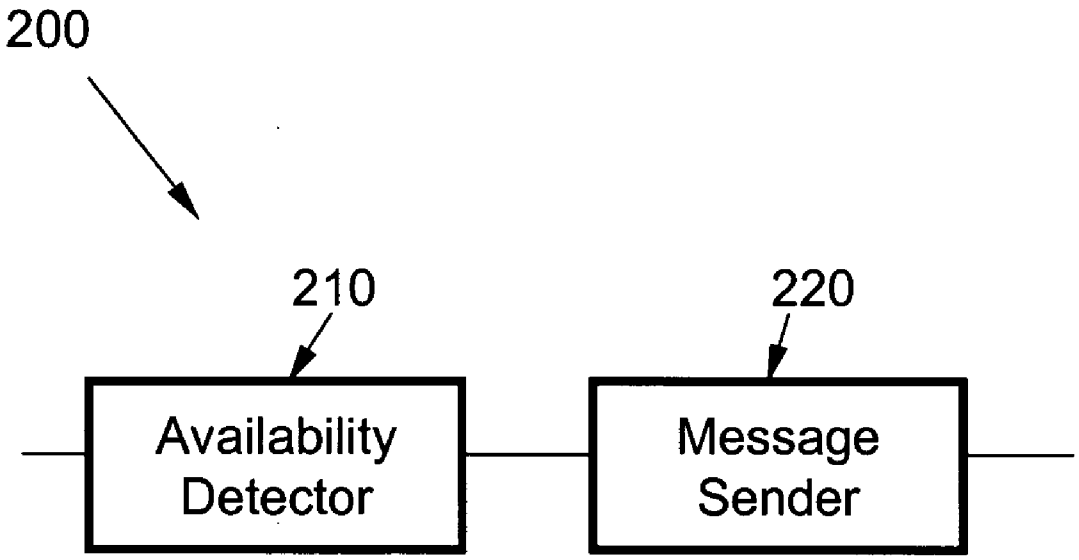


FIG. 2

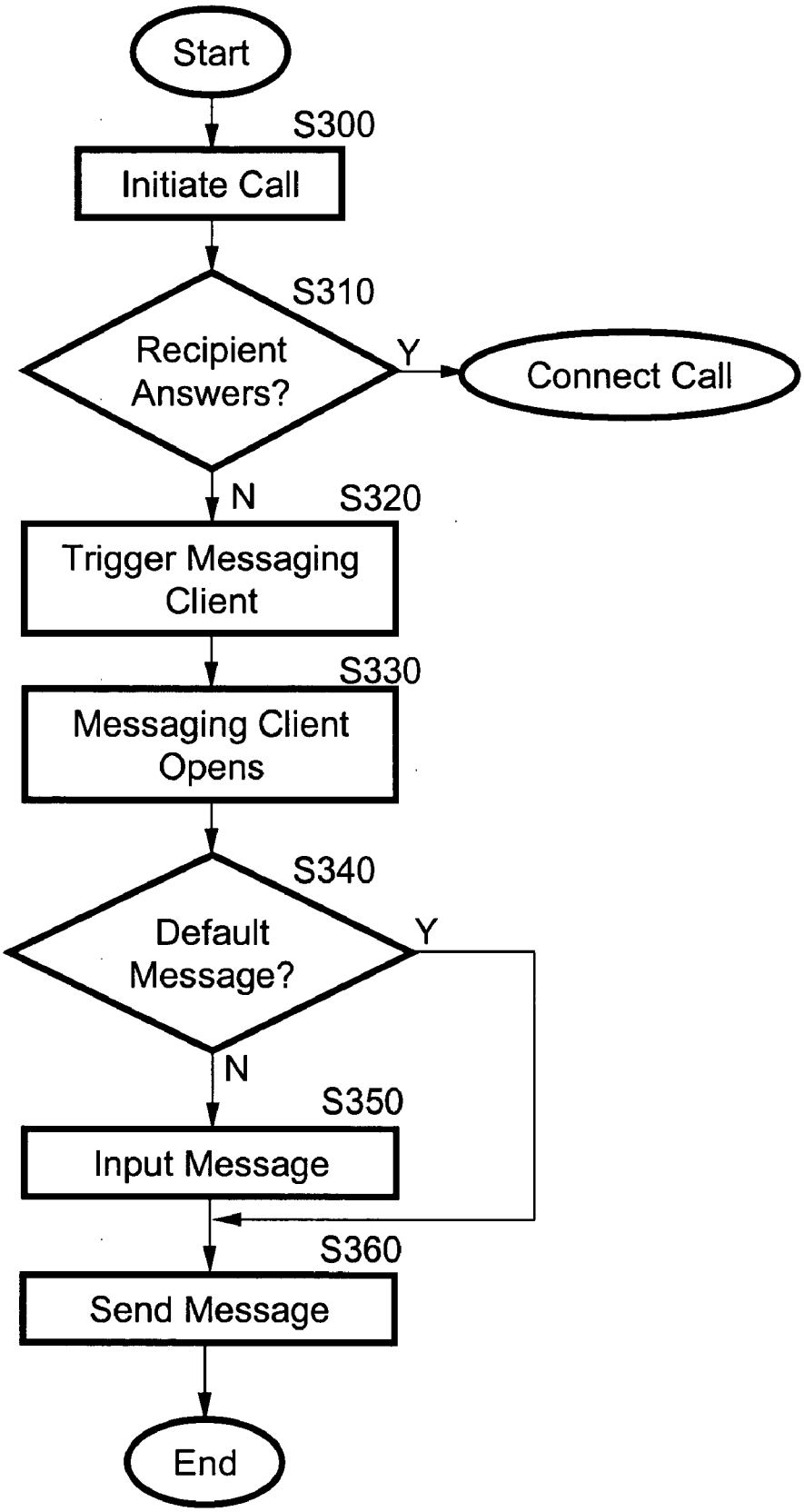

Start
S300
Initiate Call
S310
Recipient Answers?
Y
Connect Call
N
S320
Trigger Messaging Client
S330
Messaging Client Opens
S340
Default Message?
Y
N
S350
Input Message
S360
Send Message
End

FIG. 3

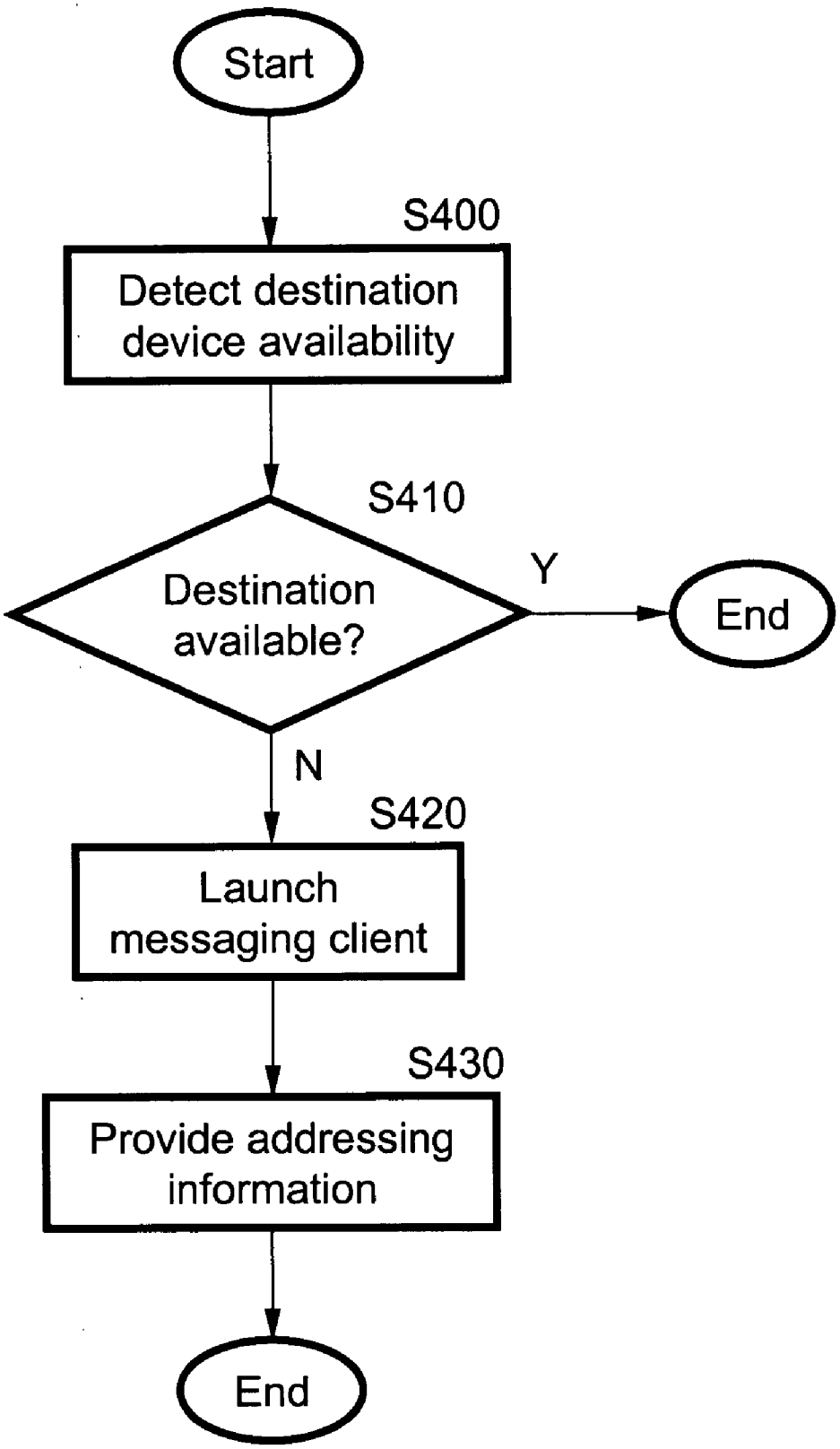

Start
S400
Detect destination device availability
S410
Destination available?
Y
End
N
S420
Launch messaging client
S430
Provide addressing information
End

FIG. 4

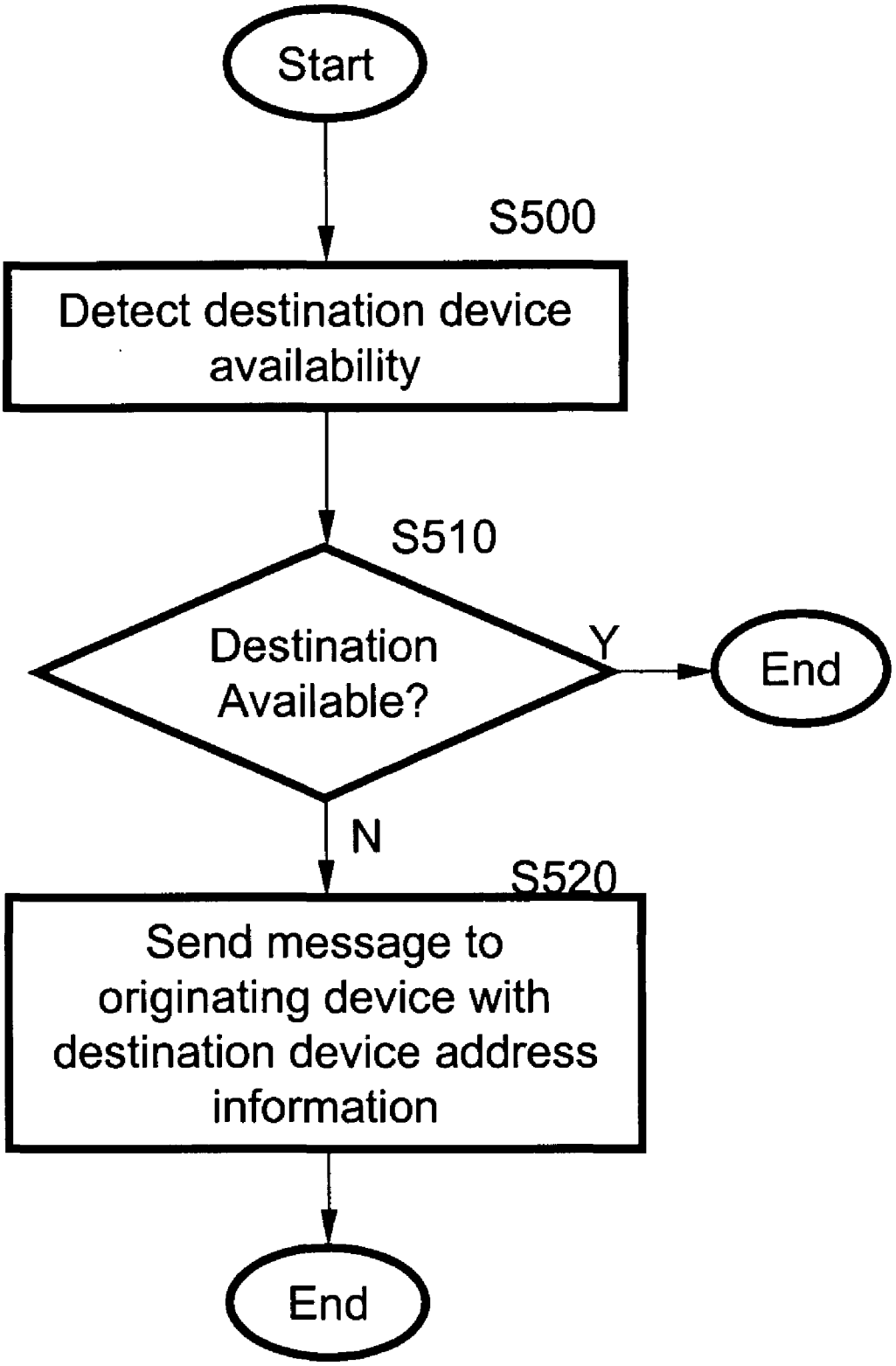

Start
S500
Detect destination device availability
S510
Destination Available?
Y
End
N
S520
Send message to originating device with destination device address information
End

FIG. 5

AUTOMATIC MESSAGING CLIENT LAUNCHER FOR A COMMUNICATION DEVICE

BACKGROUND OF THE INVENTION

[0001] 1. Technical Field of the Invention

[0002] The present invention relates to communication messaging and, more particularly, to automatically initiated communication messaging.

[0003] 2. Description of the Related Art

[0004] The communications industry is a fast growing industry, which answers the communication needs of people around the world. Mobile telephones, such as cellular and satellite phones, extend the reach of traditional wireline telephones, and enable users to stay in touch when they would otherwise be inaccessible. Communications carriers are also providing an increasing variety of services to their users. Messaging services (such as Short Message Service) are widely used, and are an important source of revenue for cellular carriers. In view of the growing popularity of messaging services, the availability of messaging services for other types of communication devices is also rising. However, despite the versatility of the available communications networks, no one is truly accessible at all times.

[0005] Cellular telephone users now commonly use their cellular telephones not only to call other users, but also to leave voicemail messages, and to send each other text messages. A significant amount of cellular carrier revenues now come from the transmission of Short Message Service (SMS) text messages. In view of the popularity of these services, messaging capability is becoming available for other types of telephones, such as Voice over IP (VoIP) telephones. The range of services provided by communications carriers is expected to increase. Multimedia messaging services (MMS), which expand SMS messaging beyond text to include multimedia content, will soon be widely available. Every additional service that is offered by a communications carrier improves its ability to attract clients and to compete with other carriers. Cellular communication carriers expect that additional services will increase the Average Revenue Per User (ARPU), mainly because of increased airtime, which is the billable duration of the conversation.

[0006] Telephone communications carriers routinely provide Voicemail services. Each voicemail-enabled user has an individual voicemail box on a central server. If a call recipient is unavailable to receive an incoming call, a prerecorded greeting is played to the caller. The caller is then able to record a voice message, which is stored in the recipient's voicemail box for access by the recipient at a later time. Voicemail is an important service for both the caller and the recipient. The caller is not obligated to call the same individual repeatedly. The recipient does not miss incoming calls, even when talking to a different individual or when the telephone is disconnected.

[0007] Voicemail has several disadvantages. Voicemail services can be cumbersome, as users may be required to listen to lengthy messages and to navigate through various menus in order to send or receive voice messages. The user also pays for airtime while utilizing voicemail services. For these reasons, callers often elect to end the connection rather than leave a voicemail message.

[0008] Cellular telephone messaging services, such as SMS and MMS, provide callers with alternative ways of communicating with other users without speaking to them directly. SMS is a transmission service for transmitting short text messages to wireless devices. A SMS message consists of a short text message, up to 160 alphanumeric characters in length. Non-text based short messages (for example, in binary format) are also supported, and are used, for example, for downloading ringtones and for logo services.

[0009] The Short Message Service features confirmation of message delivery. Thus, unlike paging, senders of SMS messages can receive a return message notifying them whether the short message has been delivered or not.

[0010] The Short Message Service is a store and forward service. SMS messages are not sent directly from sender to recipient, but via a Short Message Service Center (SMSC) that stores each message until the message can be delivered to the appropriate mobile device. If the subscriber is inactive, the SMSC holds the message for a period of time, and delivers the messages when the subscriber accesses the network. Sending SMS messages has become popular with callers, both for providing a new message format (text rather than voice), and because SMS messages are relatively inexpensive to send.

[0011] Two new messaging formats, EMS (Enhanced Message Service) and MMS (Multimedia Message Service), are now emerging. EMS adds text formatting, black-and-white images and simple sounds to the unformatted text that SMS supports. Wireless service providers that offer SMS can add EMS with relatively simple upgrades to their network infrastructure.

[0012] In comparison with SMS and EMS, MMS provides users with significantly extended messaging capabilities. MMS messages may contain still images, text, audio and video clips, and presentation information, in addition to text. The presentation information defines the way the message content is presented to the user, for example the order in which still images are displayed. An MMS message is displayed to the recipient as a multimedia presentation. The recipient does not need to manually select and open data attached to a message. Like SMS, MMS provides confirmation of message delivery.

[0013] MMS messages are not transmitted directly from the caller to the recipient, but are forwarded via a Multimedia Service Center (MMSC) that performs a function analogous to the SMSC. However, the process for MMS transmission to the recipient is different.

[0014] When a sender sends an MMS message to a recipient, the message is first sent to the MMSC. The MMSC sends confirmation to the sender that the message was sent. The MMSC then sends the receiver a notification that a new message is waiting. The receiver can download the message immediately or at a later time. Once the message is successfully downloaded, the receiver is notified that the message was received, and the sender is notified that the message was delivered.

[0015] SMS and MMS messaging provide cellular clients with attractive alternatives to voicemail. SMS messages are short text messages that are inexpensive for the user, and are quickly transferred to the server over the signaling path. Additionally, once delivered, SMS messages are stored on

the cellular device. Commonly, an indicator appears on the cellular device notifying the user that an SMS message has been received. The recipient is therefore more likely to view the message. Further information about messaging services can be found at http://www.mobilesms.com/, the contents of which are hereby incorporated by reference. MMS messaging enables callers to send more elaborate messages, containing a variety of media.

[0016] Despite these advantages, SMS and MMS are currently an inconvenient way for a caller to communicate with an unavailable call recipient. If the caller attempts to place a regular call and the recipient does not answer, and the caller wishes to leave an SMS or MMS message, the caller must first hang up, and then manually access the SMS or MMS function on his or her telephone. Accessing a message function on a cellular device often requires navigating through various menus on the device. The message and the target address must be manually input into the device and then transmitted. Confronted by this option, most callers currently prefer to end the call or to leave a voice message and suffer its inconveniences.

[0017] There is thus a widely recognized need for, and it would be highly advantageous to have, user-friendly messaging to an unavailable call recipient devoid of the above limitations.

SUMMARY OF THE INVENTION

[0018] The invention has been made in view of the above circumstances and to overcome the above problems and limitations of the prior art. The aspects and advantages of the invention will be set forth in part in the description that follows and in part will be obvious from the description, or may be learned by practice of the invention. The aspects and advantages of the invention may be realized and attained by the instrumentalities and combinations particularly pointed out in the appended claims.

[0019] According to a first aspect of the present invention, there is provided an automatic messaging client launcher for a communication device. When a communication device with an automatic messaging client launcher places a call to a disconnected, or otherwise unavailable, destination communication device, the automatic messaging client launcher automatically launches the device's messaging client. The automatic messaging client launcher consists of an availability detector and a messaging initiator. The availability detector determines whether the device being called is available. The messaging initiator launches the communication device's messaging client when a called device is unavailable.

[0020] According to a second aspect of the present invention, there is provided an automatic messaging client launcher for a communication system. The automatic messaging client launcher automatically sends a message to a communication device calling an unavailable destination communication device. The automatic messaging client launcher consists of an availability detector and a message sender. The availability detector monitors the calls placed by the originating device, and detects whether a destination device is unavailable. If the destination device is unavailable, the message sender sends the originating device a message containing addressing information of the destination device.

[0021] According to a third aspect of the present invention, there is provided a method for automatically launching a messaging client on an originating communication device calling a currently unavailable destination communication device. First, the availability of the destination device is determined. Then, if the destination device is unavailable, the originating communication device's messaging client is launched, and provided with destination device addressing information.

[0022] According to a fourth aspect of the present invention, there is provided a method for automatically sending a message to an originating communication device calling a currently unavailable destination device. First, the availability of the destination device is determined. Then, if the destination device is unavailable, a message containing destination device addressing information is sent to the originating device.

[0023] According to a fifth aspect of the present invention, there is provided a method for automatically launching a messaging client on an originating communication device calling a currently unavailable destination communication device. First, the availability of the destination device is determined. If the destination device is unavailable, a trigger signal is generated. The trigger signal launches the originating communication device's messaging client. Destination device addressing information is then provided to the messaging client.

[0024] Unless otherwise defined, all technical and scientific terms used herein have the same meaning as commonly understood by one of ordinary skill in the art to which this invention belongs. Although methods and materials similar or equivalent to those described herein can be used in the practice or testing of the present invention, suitable methods and materials are described below. In addition, the materials, methods and examples are illustrative only and not intended to be limiting.

[0025] Implementation of the method and system of the present invention involves performing or completing selected tasks or processes manually, automatically, or a combination thereof. Moreover, according to actual instrumentation and equipment of preferred embodiments of the method and system of the present invention, portions of the method and/or system could be implemented by hardware or by software on any operating system of any hardware or firmware or a combination thereof. For example, as hardware, selected portions of the invention could be implemented as a chip or a circuit. As software, selected portions of the invention could be implemented as a plurality of software instructions being executed by a computer using any suitable operating system. In any case, selected portions of the method and system of the invention could be described as being performed by a data processor, such as a computing platform for executing a plurality of instructions.

[0026] The above and other aspects and advantages of the invention will become apparent from the following detailed description and with reference to the accompanying drawing figures.

BRIEF DESCRIPTION OF THE DRAWINGS

[0027] The accompanying drawings, which are incorporated in and constitute a part of this specification illustrate

embodiments of the invention and, together with the description, serve to explain the aspects, advantages and principles of the invention. The invention is herein described, by way of example only, with reference to the accompanying drawings. With specific reference now to the drawings in detail, it is stressed that the particulars shown are by way of example and for purposes of illustrative discussion of the preferred embodiments of the present invention only, and are presented in the cause of providing what is believed to be the most useful and readily understood description of the principles and conceptual aspects of the invention. In this regard, no attempt is made to show structural details of the invention in more detail than is necessary for a fundamental understanding of the invention, the description taken with the drawings making apparent to those skilled in the art how the several forms of the invention may be embodied in practice. In the drawings:

[0028] **FIG. 1** is a simplified block diagram of a preferred embodiment of an automatic messaging client launcher for a communication device, according to a preferred embodiment of the present invention.

[0029] **FIG. 2** is a simplified block diagram of an automatic messaging client launcher for a communication system, according to a preferred embodiment of the present invention.

[0030] **FIG. 3** shows call flow with automatic messaging, according to a preferred embodiment of the present invention.

[0031] **FIG. 4** is a simplified flowchart of a preferred embodiment of a method for automatically launching a messaging client on an originating communication device contacting a currently unavailable destination communication device, according to a preferred embodiment of the present invention.

[0032] **FIG. 5** is a simplified flowchart of a preferred embodiment of a method for sending a message to an originating communication device contacting a currently unavailable destination device, according to a preferred embodiment of the present invention.

DESCRIPTION OF THE PREFERRED EMBODIMENTS

[0033] The present embodiments are of an automatic messaging client launcher for a communication device that enables a user to easily send messages to an unavailable call recipient. Specifically, the present embodiments can be used to open a messaging client on the caller's communication device when a call recipient does not answer a call. The messaging client is launched with a blank or default message pre-addressed to the call recipient.

[0034] The principles and operation of an automatic messaging client launcher according to the present invention may be better understood with reference to the drawings and accompanying descriptions.

[0035] Before explaining at least one embodiment of the invention in detail, it is to be understood that the invention is not limited in its application to the details of construction and the arrangement of the components set forth in the following description or illustrated in the drawings. The invention is capable of other embodiments or of being practiced or carried out in various ways. Also, it is to be understood that the phraseology and terminology employed herein is for the purpose of description and should not be regarded as limiting.

[0036] Referring now to the drawings, **FIG. 1** is a simplified block diagram of a preferred embodiment of an automatic messaging client launcher for a communication device. The automatic messaging client launcher **100** comprises an availability detector **110** and a messaging initiator **120**, which are located on the communication device. When a call is placed from an originating communication device, availability detector **110** monitors the call to determine if the destination device connects. If the destination device does not connect, messaging initiator **120** launches the originating device's messaging client **130**, so that the user may conveniently send a message to the unavailable device. The automatic messaging client launcher **100** may be an independent component of the communication device, or may be integrated into the messaging client **130**.

[0037] The communication device of all the embodiments discussed herein is any communications device with messaging capabilities. These communications devices include cellular telephones, IP telephones (portable and desktop), smart telephones and satellite telephones. Some fixed line telephones are now available with SMS for wireline capabilities.

[0038] In the preferred embodiment, availability detector **110** monitors the call from the time the ring tone is present until that call is answered or until a busy signal or any other indication of failure to complete the call is obtained. The availability detector **110** uses signaling information to determine the call progress. For example, signaling information can be received over Signaling System 7 for the number of ring tones. For IP telephones, SIP is used for signaling information in VoIP. The availability detector **110** may use several criteria to determine that a destination device is unavailable, or that the call has not been completed. The destination device may be considered unavailable (i) if a busy signal is detected, (ii) if the call is not answered after a predetermined number of rings, (iii) if the call connects to a voicemail box, or (iv) if an indication is received from the communication carrier that the destination device is offline. An incomplete call is considered to be a voice call between two parties that cannot be completed.

[0039] If availability detector **110** determines that the destination device is unavailable, messaging initiator **120** launches the originating device's messaging client **130**. The messaging initiator **120** preferably provides the messaging client **130** with addressing information of the unavailable destination device. Generally, the addressing information comprises of the telephone number of the unavailable device, which may be obtained from the memory of the originating communication device. The messaging initiator **120** may be able to detect that a destination communication device does not have messaging capabilities, for example, when calling a land-line telephone, and refrain from launching messaging client **130** in this case.

[0040] In the preferred embodiment, the automatic messaging client launcher **100** is integrated into the messaging client **130**. In the preferred embodiment, messaging initiator **120** launches the messaging client **130** with the address of the unavailable destination device already defined as the

message destination address. The destination address is generally designated in a message destination field, which may be displayed to the user accompanying the message content, or may constitute a portion of the control information accompanying the message. In the preferred embodiment, the destination of the unanswered call is automatically inserted into the appropriate destination field. The message may be an SMS, EMS or MMS message. The caller supplies the message content, which may comprise text, audio clips, video clips, still images, multimedia presentations and voice.

[**0041**] Preferably, the communication device messaging client **130** opens with an input screen. The input screen is displayed to the device user, for user input of message content. In the preferred embodiment, the message input screen contains no content beyond the address of the unavailable device. The user may input the desired message content, either manually or by selecting a predefined message from the communication device memory.

[**0042**] In the preferred embodiment the message constitutes a default message. The message may be a standard message defined by the communication device, or may be definable by the user. The message may include information obtained from the communication device memory, such as the caller name, and the date and time the call was made. The user may send the default message unchanged or may modify or add to the default message.

[**0043**] In the preferred embodiment, the user enters a command in order to send the message. In a further preferred embodiment, a default message is sent automatically when the availability detector **110** determines that the destination is unavailable, without the need for any user input. The message may be an SMS, EMS, MMS or voice message, or any other technologically feasible message type. The user records the default message in the manner necessitated by the type of message being left (e.g., recording a voice message or manipulating a keypad to input a SMS message).

[**0044**] In a further preferred embodiment, automatic messaging client launcher **100** comprises an automatic dialer, which automatically dials a list of numbers input by the user. The automatic dialer stores the telephone numbers entered by the user, so the user does not have to repeatedly enter the same telephone number. If a destination device does not connect, messaging initiator **120** launches the communication device messaging client **130** and a default message is automatically sent to the unavailable device.

[**0045**] Preferably, automatic messaging is activated and deactivated by the user from the communication device. Alternatively, the cellular system operator can control the activation and deactivation of the automatic messaging. In the preferred embodiment, the automatic messaging client launcher **100** is activated globally (i.e., all cellular system operators support automatic messaging), but can also be activated on a per system operator basis as well. In sum, if the cellular system operator supports automatic messaging, the messaging client **130** is launched whenever availability detector **110** determines that the destination device is unavailable. In an additional preferred embodiment, when a destination device is unavailable the user is given a choice of responses, such as leaving an SMS or MMS message, leaving a voice message, or disconnecting without leaving any message. The user may be prompted to make the selection by a recorded message or by a message displayed on the screen, and may input his or her choice from the keyboard or by voice command.

[**0046**] Preferably, messaging initiator **120** launches messaging client **130** in accordance with a set of user-definable rules. These rules may use various criteria available to the messaging initiator **120**, such as information within the communication device or a network address book, or the type of ring-back or other call progress tone received. The user can thus tailor the messages sent by the messaging client **130** for different purposes. For example, the user may define a category of "Friends" in the device address book. This is different than the network address book described above. Please note that "Friends" category can be defined on either the network address book or on a personal address book. The user's friends can be sent a different message type or a different default message than the message sent to other destination devices. Alternately, these rules may be defined within the messaging client **130**. The messaging initiator **120** may then provide additional information (provisioned by the user) required by the messaging client **130** to apply the rules, such as the reason the messaging client **130** was launched (for example, in response to a call-waiting ring or to a number of unanswered rings).

[**0047**] In the preferred embodiment, if availability detector **110** detects that a destination device is unavailable, then the messaging initiator **120** launches the messaging client **130** by mimicking the process that occurs in the device when a message is received from the communications carrier server. A message, which appears to have been sent by the unavailable destination device, is input into the messaging client **130**. The input message may be a blank or default message. When the caller replies to the message, the reply is sent to the unavailable destination device. In the preferred embodiment, the unavailable destination device is specified in a message reply field.

[**0048**] Reference is now made to **FIG. 2**, which is a simplified block diagram of an automatic messaging client launcher for a communication system. In contrast with the embodiments described above, automatic messaging client launcher **200** operates from within the communication system, and not in the communication device. Automatic messaging client launcher **200** comprises of an availability detector **210**, and a message sender **220**. Availability detector **210** monitors calls originating from communication devices from system subscribers, as well as calls originating from sources other then system subscribers. If a monitored call does not connect to the destination device, then message sender **220** sends a message containing destination device addressing information to the originating device. The automatic messaging client launcher **200** stores the destination device addressing information, and this addressing information is used for sending a reply to the currently unavailable destination device.

[**0049**] Availability detector **210** monitors the call to determine if the destination device connects. Methods for determining destination unavailability vary, as described above. Additionally, availability detector **210** may have access to telephone network signaling information that can be used to determine if a called device is available.

[**0050**] In the preferred embodiment, the message sent to the originating device by message sender **220** is structured

such that when the message is replied to, the reply is addressed to the destination device. In the preferred embodiment, the message sent to the originating device specifies the unavailable destination device in a message reply field.

[0051] Commonly, when a communication device receives a message, the device's messaging client is launched. When the originating device receives the message sent by the automatic messaging client launcher **200**, the communication device responds to the message as it would respond to any other received message, i.e., it launches the messaging client. When the originating device user replies to the received message, the reply is sent to the unavailable destination communication device.

[0052] In the preferred embodiment, automatic messaging can be switched on and off by the user either from the communication device, or via the communications carrier. The communication device comprises a provision section that will allow the user to set and/or change preferences. Alternatively, the user can access a website of the communications carrier and set and/or change preferences.

[0053] Reference is now made to **FIG. 3**, which shows a call flow scenario for automatic messaging. At S**300**, the caller places a call. At S**310**, a determination is made whether the call recipient answers. If the recipient answers, the call is put through. Otherwise, a trigger signal is provided to the messaging client, at S**320**, causing the messaging client to launch. The trigger signal is derived from answer/no-answer data provided in the signaling information. The trigger signal may vary, as described below. If the automatic messaging client launcher is implemented on the communication device, the messaging initiator generates the appropriate launch signal within the communication device. If the automatic messaging client launcher is implemented on the communication system, the trigger signal consists of a message sent to the originating device. Upon receipt of the message, the communication device launches the messaging client. In either case, the messaging client is provided with addressing information of the unavailable device, which may be specified as a destination or reply address for the message. The messaging client opens on the originating device at S**330**. At S**340**, it is determined whether a default message is available. If not, the caller inputs a message at S**350**. Finally, the message is sent at S**360**.

[0054] Reference is now made to **FIG. 4**, which is a simplified flowchart of a preferred embodiment of a method for automatically launching a messaging client on an originating communication device calling a currently unavailable destination communication device.

[0055] At S**400**, a call placed from an originating device to a destination device is monitored to determine whether the destination device is available. At S**410**, it is determined whether the destination device is unavailable. Methods for determining destination unavailability vary, as described above. Then, at S**420**, the messaging client of the originating communication device is launched. At S**430**, destination device addressing information is provided to the messaging client. Destination device addressing information is provided in accordance with the method used to launch the messaging client, so that the user may send a message to the destination device without manually inputting the destination device address.

[0056] The above method can be implemented on, for example, a NOKIA 7650 cellular telephone, using the SYMBIAN operating system. An automatic messaging client launching application can also be developed for Binary Runtime Environment for Wireless (BREW) enabled communication devices. BREW is an application execution environment developed by QUALCOMM that enables the development of applications that facilitate user access to the device's personal information management tools and telephony functions. BREW applications can be developed for both CDMA and GSM phones and networks, and they can be ported to any currently available cellular telephone, regardless of the air-interface technology.

[0057] Methods for launching the messaging client may vary. In the preferred embodiment, a trigger signal is provided directly to the messaging client, thereby launching the messaging client. In a further preferred embodiment, the trigger signal is provided at a selected stage in the communication device processing of incoming messages. The trigger signal is equivalent to a signal that would occur at the selected stage if a message were received from the unavailable destination device. When the trigger signal is provided at the selected stage, communication device operation causes the messaging client to be launched.

[0058] After the messaging client is launched, the messaging client may display an input screen on the communication device, showing a blank or default message, for user input of message content. The user may use the input screen to input text and/or other data, which may be sent to the destination device upon a user command. The user may be prompted to input the message content. Alternatively, the messaging client may send a default message to the destination device automatically. The message may consist of any technologically feasible message type.

[0059] Reference is now made to **FIG. 5**, which is a simplified flowchart of a preferred embodiment of a method for automatically sending a message to an originating communication device calling a currently unavailable destination device. The method of **FIG. 5** is performed external to the originating communication device, for example by a mobile communication network. Commonly, when a communication device with messaging capabilities receives a message, the receiving communication device launches its messaging client. An external agent can thus cause a communication device to launch its messaging client by sending a message to the device.

[0060] At S**500**, a call that is sent by the originating device is monitored to detect whether the destination device is available. If it is determined at S**510** that the destination device is unavailable, a message is sent to the originating device at S**520**. The message sent to the originating device contains addressing information of the unavailable destination device, preferably in the source field. Location in the source field is preferred since normal operation of the reply feature will send a message directly to the unavailable destination device. The originating device is expected to respond to the received message as it would to any received message, by launching the messaging client.

[0061] Almost every telephone user has been frustrated at one time or another by an inability to contact another user who is offline or busy. Automatic messaging increases the ease with which a caller can send a message to an unavailable destination, and makes messaging a more readily available option. SMS messaging has already proven to be an

attractive communication option for many callers. MMS is expected to increase this trend. Communication carriers with automatic messaging capability will be able to provide users with a versatile new service, and will improve their ability to attract clients.

[0062] It is expected that during the life of this patent many relevant instant messaging services will be developed and the scope of the term messaging service is intended to include all such new technologies a priori.

[0063] It is appreciated that certain features of the invention, which are, for clarity, described in the context of separate embodiments, may also be provided in combination in a single embodiment. Conversely, various features of the invention, which are, for brevity, described in the context of a single embodiment, may also be provided separately or in any suitable sub-combination.

[0064] Although the invention has been described in conjunction with specific embodiments thereof, it is evident that many alternatives, modifications and variations will be apparent to those skilled in the art. Accordingly, it is intended to embrace all such alternatives, modifications, and variations that fall within the spirit and broad scope of the appended claims. All publications, patents and patent applications mentioned in this specification are herein incorporated in their entirety by reference into the specification, to the same extent as if each individual publication, patent or patent application were specifically and individually indicated to be incorporated herein by reference. In addition, citation or identification of any reference in this application shall not be construed as an admission that such reference is available as prior art to the present invention.

[0065] The foregoing description of the preferred embodiments of the invention has been presented for purposes of illustration and description. It is not intended to be exhaustive or to limit the invention to the precise form disclosed, and modifications and variations are possible in light of the above teachings or may be acquired from practice of the invention. The embodiments were chosen and described in order to explain the principles of the invention and its practical application to enable one skilled in the art to utilize the invention in various embodiments and with various modifications as are suited to the particular use contemplated.

[0066] Thus, while only certain embodiments of the invention have been specifically described herein, it will be apparent that numerous modifications may be made thereto without departing from the spirit and scope of the invention. Further, acronyms are used merely to enhance the readability of the specification and claims. It should be noted that these acronyms are not intended to lessen the generality of the terms used and they should not be construed to restrict the scope of the claims to the embodiments described therein.

What is claimed is:

1. An automatic messaging client launcher for a communication device for automatically launching a messaging client of an originating device calling a destination communication device, said automatic messaging client launcher comprising:

an availability detector, for detecting availability of said destination device; and

a messaging initiator associated with said availability detector for launching said messaging client when said destination device is unavailable.

2. The automatic messaging client launcher according to claim 1, wherein said communication device comprises one of a group of communications devices comprising a telephony device, a mobile communication device, a cellular telephone, an internet protocol (IP) telephone, a smart telephone and a satellite telephone.

3. The automatic messaging client launcher according to claim 1, wherein said messaging initiator is operable to provide destination device addressing information to said messaging client.

4. The automatic messaging client launcher according to claim 3, wherein said messaging initiator is operable to launch said messaging client by inputting a message to said messaging client.

5. The automatic messaging client launcher according to claim 4, wherein said messaging initiator is operable to format said message such that a reply to said message is addressed to said destination device.

6. The automatic messaging client launcher according to claim 5, wherein said messaging initiator is operable to provide said destination device addressing information in a reply field of said message.

7. The automatic messaging client launcher according to claim 3, wherein said messaging client comprises an integrated component of said automated messaging client launcher.

8. The automatic messaging client launcher according to claim 7, wherein said messaging client is operable to send a message to said destination device.

9. The automatic messaging client launcher according to claim 8, wherein said messaging client is operable to send said message upon a user command.

10. The automatic messaging client launcher according to claim 8, wherein said messaging client is operable to provide said destination device addressing information in a destination field of said message.

11. The automatic messaging client launcher according to claim 7, wherein, upon launch, said messaging client is operable to display a message content input screen on said originating communication device.

12. The automatic messaging client launcher according to claim 8, wherein a type of said message comprises one of a group of message types comprising voice message, short message, enhanced message, and multimedia message.

13. The automatic messaging client launcher according to claim 8, wherein a content of said message comprises one of a group comprising text, audio, video, still image, multimedia and voice.

14. The automatic messaging client launcher according to claim 8, wherein a content of said message comprises default message content.

15. The automatic messaging client launcher according to claim 14, wherein said messaging client is operable to send said default message to said destination device automatically.

16. The automatic messaging client launcher according to claim 14, wherein said default message can be specified by a user of said originating communication device.

17. The automatic messaging client launcher according to claim 1, wherein said automatic messaging client launcher is activated and deactivated by said originating communication device.

18. The automatic messaging client launcher according to claim 1, wherein said availability detector is operable to detect unavailability of a destination device when said destination device does not connect after a predetermined number of rings.

19. The automatic messaging client launcher according to claim 1, wherein said availability detector is operable to detect unavailability of a destination device when a busy signal is received from said destination device.

20. The automatic messaging client launcher according to claim 1, wherein said availability detector is operable to detect unavailability of a destination device when a connection is made to a voicemail box of said destination device.

21. The automatic messaging client launcher according to claim 1, wherein when said availability detector detects that a destination device is unavailable, said messaging client is launched to send a message to said originating communication device that appears to be sent from said unavailable destination device.

22. An automatic messaging client launcher for a communication system for automatically sending a message to an originating communication device calling a destination communication device, said automatic messaging client launcher comprising:

an availability detector for detecting availability of said destination device; and

a message sender associated with said availability detector for sending to said originating device a message comprising an address of said destination device.

23. The automatic messaging client launcher according to claim 22, wherein said originating communication device comprises one of a group of communications devices comprising a telephony device, a mobile communication device, a cellular telephone, an internet protocol (IP) telephone, smart telephone and a satellite telephone.

24. The automatic messaging client launcher according to claim 22, wherein said message sender is operable to format said message such that a reply to said message is addressed to said destination device.

25. The automatic messaging client launcher according to claim 24, wherein said message sender is operable to provide said destination device in a reply field of said message.

26. The automatic messaging client launcher according to claim 22, wherein a type of said message comprises one of a group of message types comprising voice message, short message, enhanced message, and multimedia message.

27. The automatic messaging client launcher according to claim 22, wherein a content of said message comprises one of a group comprising text, audio, video, still image, multimedia and voice.

28. The automatic messaging client launcher according to claim 22, wherein said message comprises default message content.

29. The automatic messaging client launcher according to claim 28, wherein a user of said originating communication device can specify said default message content.

30. An automatic messaging client launcher according to claim 21, wherein said automatic messaging client launcher is activated and deactivated by a user of said device.

31. The automatic messaging client launcher according to claim 22, wherein when said availability detector detects that a destination device is unavailable, said messaging client is launched to send a message to said originating communication device that appears to be sent from said unavailable destination device.

32. A method for automatically launching a messaging client on an originating communication device calling a destination communication device, said method comprises:

detecting availability of said destination device; and

if said destination device is unavailable, then:

launching a messaging client of said originating communication device; and

providing destination device addressing information to said messaging client.

33. The method for automatically launching a messaging client according to claim 32, wherein said originating communication device comprises one of a group of communications devices comprising a telephony device, a mobile communication device, a cellular telephone, an internet protocol (IP) telephone, smart telephone and a satellite telephone.

34. The method for automatically launching a messaging client according to claim 32, wherein the method further comprises generating a message addressed to said destination device.

35. The method for automatically launching a messaging client according to claim 34, wherein the method further comprises sending said message.

36. The method for automatically launching a messaging client according to claim 35, wherein said message is sent upon a user command.

37. The automatic messaging client launcher according to claim 34, wherein a content of said message comprises one of a group comprising text, audio, video, still image, multimedia and voice.

38. The automatic messaging client launcher according to claim 34, wherein said message comprises a default message.

39. The method for automatically launching a messaging client according to claim 38, wherein the method further comprises sending said default message automatically.

40. The method for automatically launching a messaging client according to claim 32, wherein the method further comprises opening on said originating device an input screen for user input of message content.

41. The method for automatically launching a messaging client according to claim 40, wherein the method further comprises prompting a user to input said message content.

42. The method for automatically launching a messaging client according to claim 34, wherein a type of said message comprises one of a group of message types comprising voice message, short message, enhanced message, and multimedia message.

43. The method for automatically launching a messaging client according to claim 32, wherein destination device unavailability is detected when said destination device does not connect after a predetermined number of rings.

44. The method for automatically launching a messaging client according to claim 32, wherein destination device unavailability is detected when a busy signal is received from said destination device.

45. The method for automatically launching a messaging client according to claim 32, wherein destination device unavailability is detected when a connection is made to a voicemail box of said destination device.

46. A method for automatically sending a message to an originating communication device calling a destination device, by:

detecting availability of said destination device; and

if said destination device in unavailable, then sending to said originating device a message comprising destination device addressing information.

47. The method for automatically sending a message according to claim 46, wherein said originating communication device comprises one of a group of communications devices comprising a telephony device, a mobile communication device, a cellular telephone, an internet protocol (IP) telephone, smart telephone and a satellite telephone.

48. The method for automatically sending a message according to claim 46, wherein said message is formatted such that a reply to said message is addressed to said destination device.

49. The method for automatically sending a message according to claim 46, wherein said message comprises a default message.

50. The method for automatically sending a message according to claim 46, wherein a type of said message comprises one of a group of message types comprising voice message, short message, enhanced message, and multimedia message.

51. A method for automatically launching a messaging client on an originating communication device calling a destination communication device, where the meter comprises:

detecting availability of said destination device; and

if said destination device is unavailable, then:

generating a trigger signal;

launching said messaging client of said originating communication device in response to said trigger signal; and

using said trigger signal to provide destination device addressing information to said messaging client.

52. The method for automatically launching a messaging client according to claim 51, wherein said originating communication device comprises one of a group of communications devices comprising a telephony device, a mobile communication device, a cellular telephone, an internet protocol (IP) telephone, smart telephone and a satellite telephone.

* * * * *