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Application Data Sheet 37 CFR 1.76		Attorney Docket Number	0112855.00141US3
		Application Number	
Title of Invention	VOICE OVER SHORT MESSAGE SERVICE		
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	Daniel	L.	ROTH		
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Mailing Address of Applicant:					
Address 1	20 Tileston St., #3M				
Address 2					
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Title of the Invention	VOICE OVER SHORT MESSAGE SERVICE		
Attorney Docket Number	0112855.00141US3	Small Entity Status Claimed	☐
Application Type	Nonprovisional		
Subject Matter	Utility		
Suggested Class (if any)		Sub Class (if any)	
Suggested Technology Center (if any)	N/A		
Total Number of Drawing Sheets (if any)	3	Suggested Figure for Publication (if any)	2

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Title of Invention	VOICE OVER SHORT MESSAGE SERVICE		

Publication Information:

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Application Number	Continuity Type	Prior Application Number	Filing Date (YYYY-MM-DD)	Patent Number	Issue Date (YYYY-MM-DD)
	Division of	11110371	2005-04-20	7395078	
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VOICE OVER SHORT MESSAGE SERVICE

Cross Reference to Related Applications

[0001] This application is a divisional of and claims priority under 35 U.S.C., §121 to U.S. Patent Application Serial No. 11/110,371, filed April 20, 2005, and entitled Voice Over Short Message Service, the entire contents of which are incorporated herein by reference, which claims priority from U.S. Provisional Patent Application Serial No. 60/563,754, filed April 20, 2004, which is incorporated herein by reference.

Technical Field

[0002] This invention generally relates to conveying voice messages over communications channels that are available on a mobile communication devices, e.g. cellular phones.

Background of the Invention

[0003] To minimize the amount of voice information transmitted over a wireless communication network, and thus maximize the number of phone calls supportable on the network at any one time, cellular phones utilize voice coders/decoders, or codecs. Codecs remove much of the redundant or unnecessary information from a speech signal. Then the fundamental elements of the speech are transmitted over the network to a receiving cellular phone where they are decoded, or recombined with data that resembles the previously removed information. This results in reconstituted speech that can be recognized by the end user. The codecs must balance the need for minimal data transmission with the need to retain enough of the original speech information to sound natural when decoded on the receiving end. In general voice codecs today can compress speech signals to between 4.5k-8k bits per second, with 2.4k bits per second being roughly the minimal rate required to maintain natural-sounding speech. Despite the ability to compress speech to these low bit rates, the network infrastructure for handling large volumes of voice calls is limited in many markets, particularly in emerging

markets in developing countries. This can make the cost of a wireless phone call there significant.

[0004] An alternate and increasingly popular method of communicating via cellular phones is text messaging. In response to the high costs of voice calls, text based mobile-to-mobile messaging called SMS, or Short Message Service, has become heavily used in some markets, particularly amongst younger demographics. SMS enables a user to transmit and receive short text messages at any time, regardless of whether a voice call is in progress. The user typically types in the message text through the small keyboard that is provided on the device. The messages are hardware limited to 160 characters, and are sent as packets through a low bandwidth, out-of-band message transfer channel. This allows for facile communication with minimal burden on the wireless network.

[0005] Most legacy wireless network systems such as GSM, TDMA, and CDMA have a text/data channel capable of sending and receiving SMS, so the infrastructure for this service already exists even in emerging markets in developing countries. Some estimates now place the global number of SMS messages at nearly 40 billion messages per month. It is thought that SMS is now the most significant source of non-voice based revenue to wireless network operators worldwide. As a result carriers are very interested in promoting the use of SMS. Indeed, network operators in developing markets may limit the implementation of more advanced voice network infrastructures due to the large revenues associated with text messaging.

Summary of the Invention

[0006] In some markets the cost of cell phone calls is relatively expensive, making text messaging (e.g. via SMS) a desirable communication alternative. However, in a portion of those markets other barriers may exist to using text. Both the sender and the receiver must be able to read and/or write. But in emerging markets, such as India which has a very large population, the adult literacy rate is roughly 60% and thus a large number of people are not sufficiently literate to type text messages into the cell phone. Thus, for many consumers in such markets who can neither compose nor read a message, SMS text-messaging as a communication mode is not an effective alternative. At least some of the embodiments described herein provide a mechanism

by which such consumers can nevertheless use the lower-cost, non-voice wireless communication channels for verbal communications instead of text messaging.

[0007] In general, in one aspect, the invention features a method of sending a voice message via a mobile communication device. The method involves: receiving an utterance from a user of the mobile communication device; generating a non-text representation of the received utterance; inserting the non-text representation into a body of a text message; and sending the text message over a wireless messaging channel from the mobile communication device to a recipient's device.

[0008] Embodiments include one or more of the following features. The mobile communication device is a cellular phone. Generating the non-text representation of the received utterance involves performing recognition on a signal derived from the received utterance to generate a string of symbols, wherein the string of symbols is the non-text representation. The symbols in the string of symbols are selected from the group consisting of phonemes, diphones, and triphones (more specifically, the symbols are phonemes). The wireless messaging channel is an SMS channel and the text message is an SMS message. The method also involves including an indicator with the text message identifying the text message as containing a non-text representation of the utterance. The non-text representation is a compressed version of the received utterance.

[0009] In general, in another aspect, the invention features a method of receiving on a mobile communication device a message representing an utterance. The method involves: over a wireless messaging channel receiving a text message, wherein the text message contains a non-text representation of the utterance; extracting the non-text representation from the text message; synthesizing an audio representation of the spoken utterance from the non-text representation; and playing the synthesized audio representation through an audio output device on the mobile communication device.

[0010] Embodiments include one or more of the following features. The mobile communication device is a cellular phone. The non-text representation of the utterance is a string of symbols representing sounds of the utterance. The symbols in the string of symbols are selected from the group consisting of phonemes, diphones, and triphones (more specifically, they are phonemes). The wireless messaging channel is an SMS channel and the text message is an SMS message. The received text message includes an indicator identifying the text message as

containing a non-text representation of the utterance. The non-text representation is a compressed version of the utterance.

[0011] In general, in still another aspect, the invention features a mobile communication device for sending a voice message. The mobile communication device includes: a processor system; a microphone for receiving an utterance from a user of the mobile communication device; a transceiver; and memory storing code which when executed on the processor system causes the mobile communication device to: generate a non-text representation of the received utterance; insert the non-text representation into a body of a text message; and send the text message via the transceiver over a wireless messaging channel from the mobile communication device to a recipient's device.

[0012] In general, in still another aspect, the invention features a mobile communication device for receiving a voice message. The mobile communication device includes: a processor system; a transceiver for receiving a text message that contains a non-text representation of an utterance; an audio output device; and memory storing code which when executed on the processor system causes the mobile communication device to: extract the non-text representation from the received text message; synthesize an audio representation of the spoken utterance from the non-text representation; and play the synthesized audio representation through the audio output device.

[0013] The details of one or more embodiments of the invention are set forth in the accompanying drawings and the description below. Other features, objects, and advantages of the invention will be apparent from the description and drawings, and from the claims.

Brief Description of the Drawings

[0014] Fig. 1 shows a block diagram of the phonetic recognition system.

[0015] Fig. 2 shows a block diagram of the phonetic synthesis system

[0016] Fig. 3 shows a high-level block diagram of a smartphone incorporating phonetic recognition and synthesis systems.

Detailed Description

[0017] The described embodiment is a method of sending and receiving spoken or audio information over the SMS network available in cellular phones. A user speaks a desired message, or utterance, into a cellular phone. A phonetic recognition algorithm in the phone then generates a non-text representation of the utterance. An SMS application in the phone sends this non-text representation in the body of an SMS message via the SMS network to the recipient's phone. At the recipient's phone, another SMS application extracts the non-text representation from the body of the SMS message. Then, a synthesizer synthesizes an audio message from the non-text representation and plays the synthesized message to the recipient.

[0018] Fig. 1 shows a high-level block diagram illustrating in greater detail the functionality that is implemented. A user speaks an utterance 110 into the cellular phone 100 and a feature extractor 130 in the front end of a recognition engine 120 within the phone processes that utterance to extract its acoustic features. Typically, feature extractor 130 includes a digitizer 102 that converts the received analog signal into a digital representation. Digitizer 102 divides the input signal into a sequence of overlapping frames and then outputs a digital representation of the signal within each of the frames. A filter 104 then filters the spectrum of the signal to, among other things, reduce the influence of non-speech noise on the speech signal and to correct for various impairments caused by the spectral characteristics of the channel over which the utterance was received. The filtering process preserves the main verbal content of the utterance while eliminating various frequencies, e.g. the very high and very low frequencies, that likely do not carry significant usable information. An analyzer 106 analyzes the filtered digital signal to extract the relevant acoustic features of the frames, i.e., the feature vector. The output of feature extractor 130 is an acoustic representation 140 of the received utterance. In the described embodiment, feature extractor 130 uses the MEL cepstrum coding technique to extract the relevant features.

[0019] In a database 160 in memory, the phone stores a set of phonemes, which are basic phonetic units from which the sounds of the spoken language are constructed. It also stores an acoustic model for each of the phonemes and an index or pointer which identifies the phoneme. The acoustic model is statistical in nature and indicates the probability that a particular phoneme was spoken given the occurrence of a particular set of acoustic features.

[0020] In the described embodiment, the recognition engine 120 employs an unconstrained phoneme recognizer 150 to determine the sequence of phonemes (i.e., phoneme string) that is most likely given the sequence of feature vectors which characterizes the user's utterance. The recognizer 150 is unconstrained in that it considers each candidate phoneme with equal weight, without presumption as to the order or to the language spoken by the user. In other words, phoneme recognizer 150 is a relatively crude recognizer that does not use a language model which enables it to identify the spoken words.

[0021] Recognizer 150 statistically compares the acoustic representation of the utterance to acoustic representations of phonemes stored in a phoneme database 160 on the cell phone. Phoneme database 160 contains a sufficiently large set of phonemes, with their acoustic representation, to effectively describe the sounds that are found in the language of the user. The phoneme recognizer 150 performs a statistical comparison of the acoustic representations of the received utterance with the acoustic representations of the phonemes to identify the best match. It does this using a well-known technique referred to as hidden Markov model (HMM), though other statistical or non-statistical techniques or models that compare features of speech to stored phonetic units could also be used.

[0022] Phoneme recognizer 150 outputs the recognized sequence of phonemes as a sequence of indices or pointers into its database of phonemes. That is, for each phoneme in the recognized string of phonemes, phoneme recognizer 150 looks up in its database phonemes the particular index or pointer that identifies that phoneme and it outputs that index or pointer. The output is a non-text representation of the spoken utterance, in this case, a phoneme string. The value of this string is that a synthesizer on the receiving end of the communication link can recreate the sequence of sounds that made up the utterance, i.e., it can recreate the utterance so that it would generally be recognizable to the user on the other end. Typically, however, the phoneme string will not be easily readable as text since word recognition is not performed.

[0023] Phoneme recognizer 150 stores the phoneme string in a buffer 175 for an SMS application 180 that is also running on the cell phone. SMS application 180 generates a text message shell for receiving the non-text representation and populates its address field with the address of the recipient's phone. When buffer 175 is full or the utterance is complete, SMS application 180 inserts the stored phoneme string into the body of an SMS message, along with a flag identifying the message as containing a non-text phoneme string that is intended for a

synthesizer on the receiving end. In effect, the flag alerts the SMS application on the other end to not treat the contents of the SMS as a text message that would normally be displayed to the user. SMS application 180 then wirelessly transmits the SMS message over the SMS channel to the recipient's cell phone.

[0024] Phoneme recognizer 150 also stores other information in SMS buffer 175 which is useful in improving the quality and/or understandability of the sounds that are synthesized by the recipient's cell phone. For example, it also specifies the temporal length of each phoneme, its volume, and possibly other parameters which can be used to control the quality of the sounds generated by the synthesizer in the receiving phone. In the described embodiment, since phoneme recognizer 150 also recognizes pauses, it truncates those recognized pauses to conserve the space required to represent the utterance.

[0025] With the phonetic recognition algorithm, utterance 110 would typically be compressed into a non-text representation 170 at a rate of approximately 200 – 700 bits per second or less. When sent over the SMS network, which in many areas has a single-message information limit of 1200 bits, this corresponds to an utterance that is about 10 seconds long upon playback on the receiving cell phone.

[0026] Note that an alternative to the approach described above would be to perform full speech recognition on the utterance and send the recognized text message in the body of the SMS message. This, however, requires that a full capability recognizer be present on the phone with a lexicon containing a dictionary of words of the type that would be spoken by the consumers to whom such a phone would be sold. That might not be practical, especially if the phone is intended for sale in a market like India, where there are over 350 different languages. The algorithms required to perform speech recognition in such an environment would be very sophisticated and complex; moreover, the resources required to perform that speech recognition would typically be beyond those that would be available on the inexpensive cell phones intended to be sold to the general population. On the other hand, a recognizer that needs to only generate a phonetic string representation of what was spoken, as opposed to the recognized text, is much less complex to build and requires significantly less onboard computational and memory resources. In addition, that set of phonemes required to support phoneme recognition is small, especially in comparison to the lexicon of words that would be necessary to perform full speech

recognition. Indeed, using the universal phoneme set would enable the recognizer to handle most languages for the purposes described herein.

[0027] It should also be noted that when the phonetic recognizer 150 statistically matches segments of the acoustic representation of the utterance 170 to acoustic representations of the phonemes, the best-match phonemes might occasionally incorrectly match the utterance. For example the recognizer might interpret a “d” sound to be a “t,” because the features obtained by the feature extractor 130 are similar for both sounds, making neither sound a significantly better match than the other in the phonetic recognizer 150. Such errors would have a more detrimental effect on speech-to-text recognition but would typically have far less detrimental effect in the applications described herein. To someone listening to the synthesized audio message, the presence of such errors in the phonetic string that is being synthesized are not likely to render the playback unintelligible. Indeed, they might not even be noticed.

[0028] Fig. 2 shows a high-level block diagram illustrating the functionality implemented on the receiver side of the SMS channel. A cellular phone 200 operated by the recipient receives the SMS message containing the non-text representation of the utterance and an SMS application 280 processes the message for presentation to the user. A flag within the received SMS message identifies the contents of the SMS message as a phonetic string that must be processed by the synthesizer to generate an audio signal. In other words, the flag causes the SMS application to process the message differently from a normal text message for which the contents of the message would simply be displayed to the user. SMS application 280 passes the phonetic string to a synthesizer 220 within the cell phone, along with any stored parameters which were supplied to control synthesizer 220 and the way it generates the sounds. The recipient’s cell phone, like the sender’s cell phone, also contains a database of phonemes along with their acoustic representations. The indices or pointers that make up the received phonetic string identify which phonemes from that database are to be synthesized to render the phonetic string into an audio message. The synthesizer plays through the cell phone speaker the sequence of sounds that represent the phonetic string. In this way, the spoken utterance is transmitted to the recipient via the SMS message facility in non-real time.

[0029] If appropriate, it is possible to program the SMS application to generate a sequence of multiple SMS messages to handle longer utterances for which the non-text representation will not fit into the body of a single message. In essence, the SMS application would “packetize” the

phonetic string and send multiple SMS messages (or packets) to the recipient's cell phone, each message containing a part of the total utterance. Each message would be indexed or tagged so that the SMS on the recipient's side could accurately reconstruct the complete representation of the utterance. The SMS application on the recipient's side of the connection would also need to be programmed to recognize that the received non-text representation is to be constructed by concatenating the contents of more than one SMS message.

[0030] In the embodiments described above, the units of speech used to represent the utterance are phonemes. However, any one of a variety of other symbol sets, other than phonemes, could be used. For example, the symbols could be diphones, triphones, syllables, demisyllables, or any other set that serves to effectively represent the sounds contained within the spoken utterances of the intended users.

[0031] For an implementation that is targeted for a specific market, a "tailored" dictionary of phonetic units selected to optimally represent the sounds of the language used in that market could be incorporated in the device. Alternatively, a universal set of phonemes could be used which would enable the phone to recognize and represent most languages.

[0032] As noted above, the phoneme recognizer does not include a full language model and indeed might not include any language model at all. Its function is to simply recognize the sounds within the utterance. For this purpose, it is not necessary to recognize their meaning. And thus the resulting representation that is produced by the recognizer is a non-text representation which likely is not readable by the user. That does not mean, however, that the selected symbol set might not include words among the set of symbols. Short, single syllabic words might, for example, appear as symbols or units among the selected set of symbols.

[0033] In effect, the phonetic recognition algorithm generates a compressed version of the spoken utterance. In the described embodiment, that compressed version is a non-text representation (i.e., a phonetic string). In fact, other algorithms could be used which simply perform compression without performing any recognition. For example, instead of using a phoneme recognizer, a vocoder could be used to generate the compressed representation and then that compressed representation would be inserted into the body of the SMS message. In other words, any algorithm that produces a non-text representation suitable for sending over SMS or another non-voice channel could be employed. It would be desirable that the selected algorithm be able to compress speech sufficiently so that it is possible to send an utterance that is long

enough to convey meaningful information. On the receiving end, the appropriate decompression algorithm would need to be implemented to reconstruct the audio version of the spoken utterance.

[0034] Various features can be added to the system to enhance usability. As indicated above, one such feature is to give the sending user the option of choosing a “voice” in which the receiving phone will replay the audio message to the receiving user. This feature is implemented by adding an additional string of characters representing “voice” parameters to the non-text representation of the utterance, which gives instructions to the synthesis algorithm. The user can select and/or adjust these parameters through a menu driven interface on the phone. These parameters would be used to tailor the synthesizer algorithm to produce the desired effect. In the same way, parameters can be included for playback speed, or other modifications to the audio message that make it sound more natural, or more representative of the sending user. Another feature that can be implemented in the system is audio prompted guidance to both the sending and receiving users, which can better enable non-literate users to operate the system. In this case, both phones store a number of prerecorded messages such as “please record after the beep,” “enter the phone number of the person you want to send this to,” and so on. The phone audibly plays an appropriate message in response to user input.

[0035] Another feature that can be implemented in the system is to allow the user to prioritize between the utterance length and quality of reproduction. In this case, the phone would store multiple algorithms that allow for varying length and quality of the non-text representation of the utterance. Before the user records the utterance, the phone offers a length/quality choice to the user. The user inputs his response either verbally or via the phone keypad; then the phone uses the algorithm corresponding to the user instruction to process the utterance. The phone then adds a series of characters giving instruction to the receiving phone on how to synthesize the message from the non-text representation of the utterance.

[0036] In the described embodiment, the cellular phone is a smartphone 300, such as is illustrated by the high-level functional block diagram of Fig. 3. Smartphone 300 is a Microsoft PocketPC-powered phone which includes at its core a baseband DSP 302 (digital signal processor) for handling the cellular communication functions (including for example voiceband and channel coding functions) and an applications processor 304 (e.g. Intel StrongArm SA-1110) on which the PocketPC operating system runs. The phone supports GSM voice calls, SMS

(Short Messaging Service) text messaging, wireless email, and desktop-like web browsing along with more traditional PDA features.

[0037] The transmit and receive functions are implemented by an RF synthesizer 306 and an RF radio transceiver 308 followed by a power amplifier module 310 that handles the final-stage RF transmit duties through an antenna 312. An interface ASIC (application-specific integrated circuit) 314 and an audio CODEC 316 provide interfaces to a speaker, a microphone, and other input/output devices provided in the phone such as a numeric or alphanumeric keypad (not shown) for entering commands and information. DSP 302 uses a flash memory 318 for code store. A Li-Ion (lithium-ion) battery 320 powers the phone and a power management module 322 coupled to DSP 302 manages power consumption within the phone. Volatile and non-volatile memory for applications processor 114 is provided in the form of SDRAM 324 and flash memory 326, respectively. This arrangement of memory is used to hold the code for the operating system, the code for customizable features such as the phone directory, and the code for any applications software that might be included in the smartphone, including the phonetic recognition, synthesizer, and SMS application code mentioned above. It also stores the phoneme database, which includes the phonemes, acoustic representations of the phonemes, and symbols representing the phonemes.

[0038] The visual display device for the smartphone includes an LCD driver chip 328 that drives an LCD display 330. There is also a clock module 332 that provides the clock signals for the other devices within the phone and provides an indicator of real time.

[0039] All of the above-described components are packaged within an appropriately designed housing 334. Since the smartphone described above is representative of the general internal structure of a number of different commercially available phones and since the internal circuit design of those phones is generally known to persons of ordinary skill in this art, further details about the components shown in Fig. 3 and their operation are not being provided and are not necessary to understanding the invention.

[0040] In general, the device would not have to be a cellular phone at all, but would possess the functionality of receiving an utterance, converting it to a non-text representation of the utterance, and sending it over SMS or another non-voice channel. For example a laptop computer having a microphone, appropriate software to generate a non-text representation of an

utterance, and a wireless transmitter that utilizes the SMS protocol and frequencies, or any other device with similar functionality, could also be implemented.

[0041] While the SMS network is presented in the above example, any network over which one might send text, data and/or media other than voice could be used. As an example one would also use an MMS (Multi-Media Service) messaging channel.

[0042] Also, the MEL cepstrum coding technique mentioned above is just one example of many known alternatives for extracting and representing features of the received utterance. Any of the other known techniques, such as LPC cepstral coefficients for example, could be employed instead of the MEL cepstrum coding technique. Two examples of coding techniques that could be used to generate the non-text representations are: (1) Takashi Masuko, Keiichi Tokuda, Takao Kobayashi, "A Very Low Bit Rate Speech Coder Using HMM with Speaker Adaptations," paper presented at the 1998 ICASSP and a version also appearing in Systems and Computers in Japan, Volume 32, Issue 12, 2001. Pages 38-46; and (2) M. Habibullah Pagarkar, Lakshmi Gopalakrishnan, Nimish Sheth, Rizwana Shaikh, Virag Shah, "Language Independent Speech Compression Using Devanagari Phonetics," found on the web at the following URL: <http://www.geocities.com/virag81/docs.html>, both of which are incorporated herein by reference

[0043] Other aspects, modifications, and embodiments are within the scope of the following claims.

WHAT IS CLAIMED IS:

- 1 1. A method of operating a mobile communication device, said method comprising:
2 over a wireless messaging channel receiving a text message, wherein the text message
3 contains a non-text representation of an utterance;
4 extracting the non-text representation from the text message;
5 synthesizing an audio representation of the spoken utterance from the non-text
6 representation; and
7 playing the synthesized audio representation through an audio output device on the
8 mobile communication device.
- 1 2. The method of claim 1, wherein the mobile communication device is a cellular phone.
- 1 3. The method of claim 1, wherein the non-text representation of the utterance is a string
2 of symbols representing sounds of the utterance.
- 1 4. The method of claim 3, wherein the symbols in the string of symbols are selected from
2 the group consisting of phonemes, diphones, triphones, syllables, and demisyllables.
- 1 5. The method of claim 3, wherein the symbols in the string of symbols are phonemes.
- 1 6. The method of claim 1, wherein the wireless messaging channel is an SMS channel
2 and the text message is an SMS message.
- 1 7. The method of claim 1, wherein the received text message includes an indicator
2 identifying the text message as containing a non-text representation of the utterance.
- 1 8. The method of claim 1, wherein the non-text representation is a compressed version of
2 the utterance.
- 1 9. The method of claim 1 further comprising:
2 over the wireless messaging channel receiving a plurality of text messages in addition to
3 the first-mentioned text message, said first-mentioned text message and said plurality of text

4 messages forming a set of text messages, wherein each text message of the set of text messages
5 contains a non-text representation of a different portion of the utterance;
6 extracting the non-text representations from the plurality of text messages; and
7 synthesizing the audio representation of the spoken utterance from the non-text
8 representations extracted from the set of text messages.

1 10. A mobile communication device for receiving a voice message, said mobile
2 communication device comprising:
3 a processor system;
4 a transceiver for receiving a text message that contains a non-text representation of an
5 utterance;
6 an audio output device; and
7 memory storing code which when executed on the processor system causes the mobile
8 communication device to:
9 extract the non-text representation from the received text message;
10 synthesize an audio representation of the spoken utterance from the non-text
11 representation; and
12 play the synthesized audio representation through the audio output device.

1 11. The mobile communication device of claim 10, wherein the mobile communication
2 device includes a cellular phone.

1 12. The mobile communication device of claim 10, wherein the non-text representation
2 of the utterance is a string of symbols representing sounds of the utterance.

1 13. The mobile communication device of claim 12, wherein the symbols in the string of
2 symbols are selected from the group consisting of phonemes, diphones, triphones, syllables, and
3 demisyllables.

1 14. The mobile communication device of claim 12, wherein the symbols in the string of
2 symbols are phonemes.

1 15. The mobile communication device of claim 10, wherein the wireless messaging
2 channel is an SMS channel and the text message is an SMS message.

1 16. The mobile communication device of claim 10, wherein the received text message
2 includes an indicator identifying the text message as containing a non-text representation of the
3 utterance.

1 17. The mobile communication device of claim 10, wherein the non-text representation
2 is a compressed version of the utterance.

1 18. The mobile communication device of claim 10, wherein the code when executed on
2 the processor further causes the mobile communication device to:

3 over the wireless messaging channel, receive a plurality of text messages in addition to
4 the first-mentioned text message, said first-mentioned text message and said plurality of text
5 messages forming a set of text messages, wherein each text message of the set of text messages
6 contains a non-text representation of a different portion of the utterance;

7 extract the non-text representations from the plurality of text messages; and

8 synthesize the audio representation of the spoken utterance from the non-text
9 representations extracted from the set of text messages.

Abstract of the Invention

A method of operating a mobile communication device, the method involving: over a wireless messaging channel receiving a text message that contains a non-text representation of an utterance; extracting the non-text representation from the text message; synthesizing an audio representation of the spoken utterance from the non-text representation; and playing the synthesized audio representation through an audio output device on the mobile communication device.

1/3

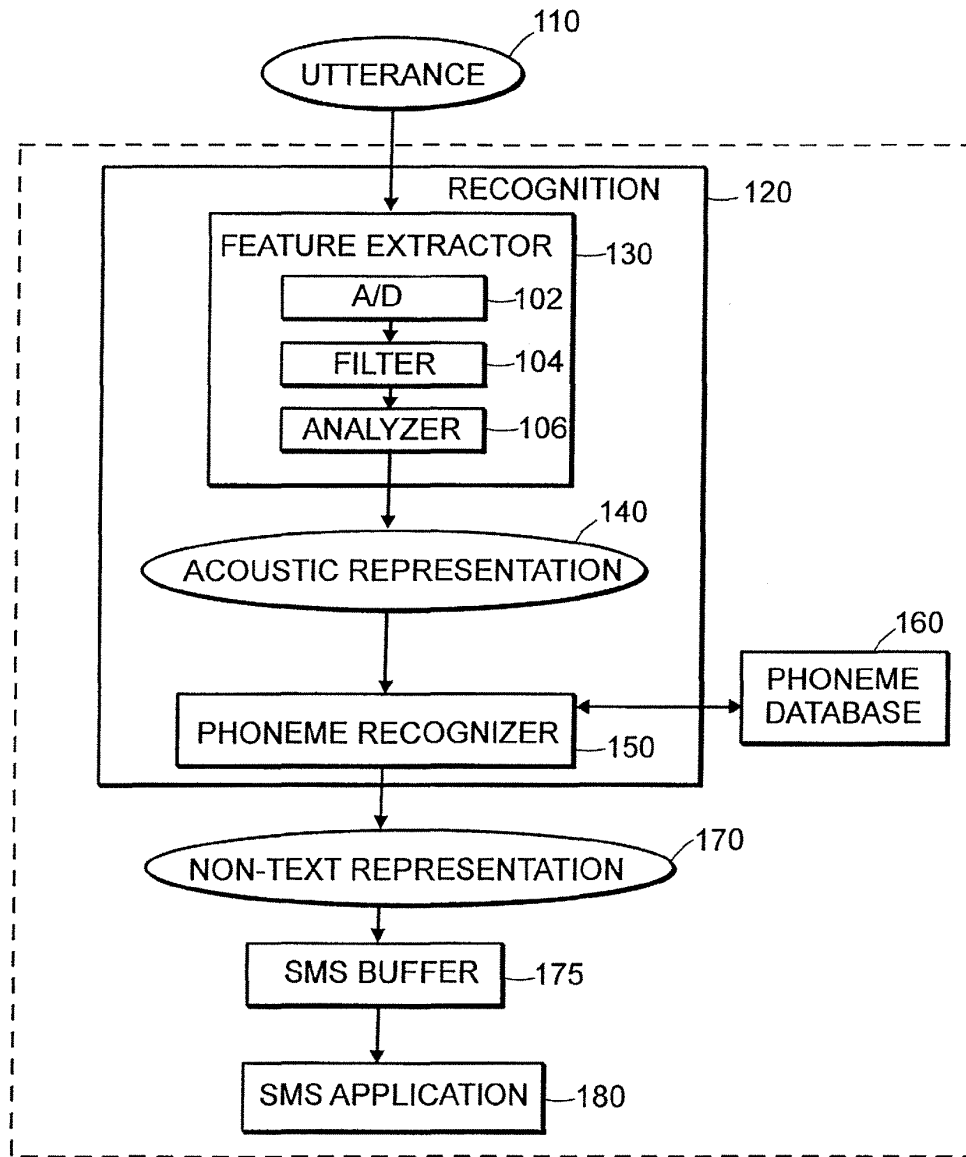


FIG. 1

2/3

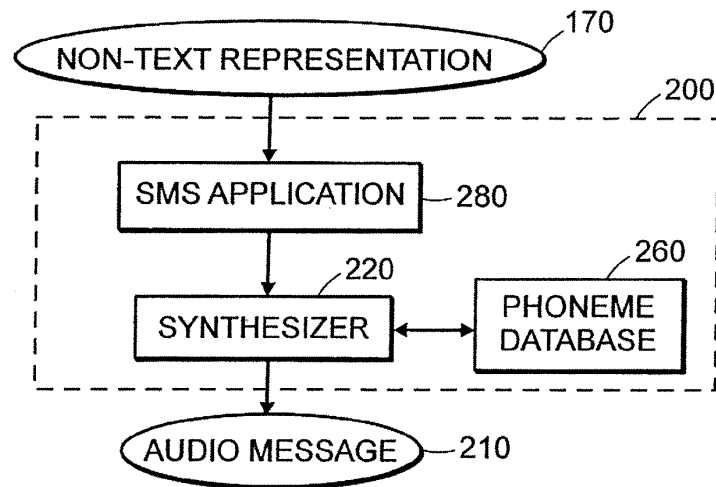


FIG. 2

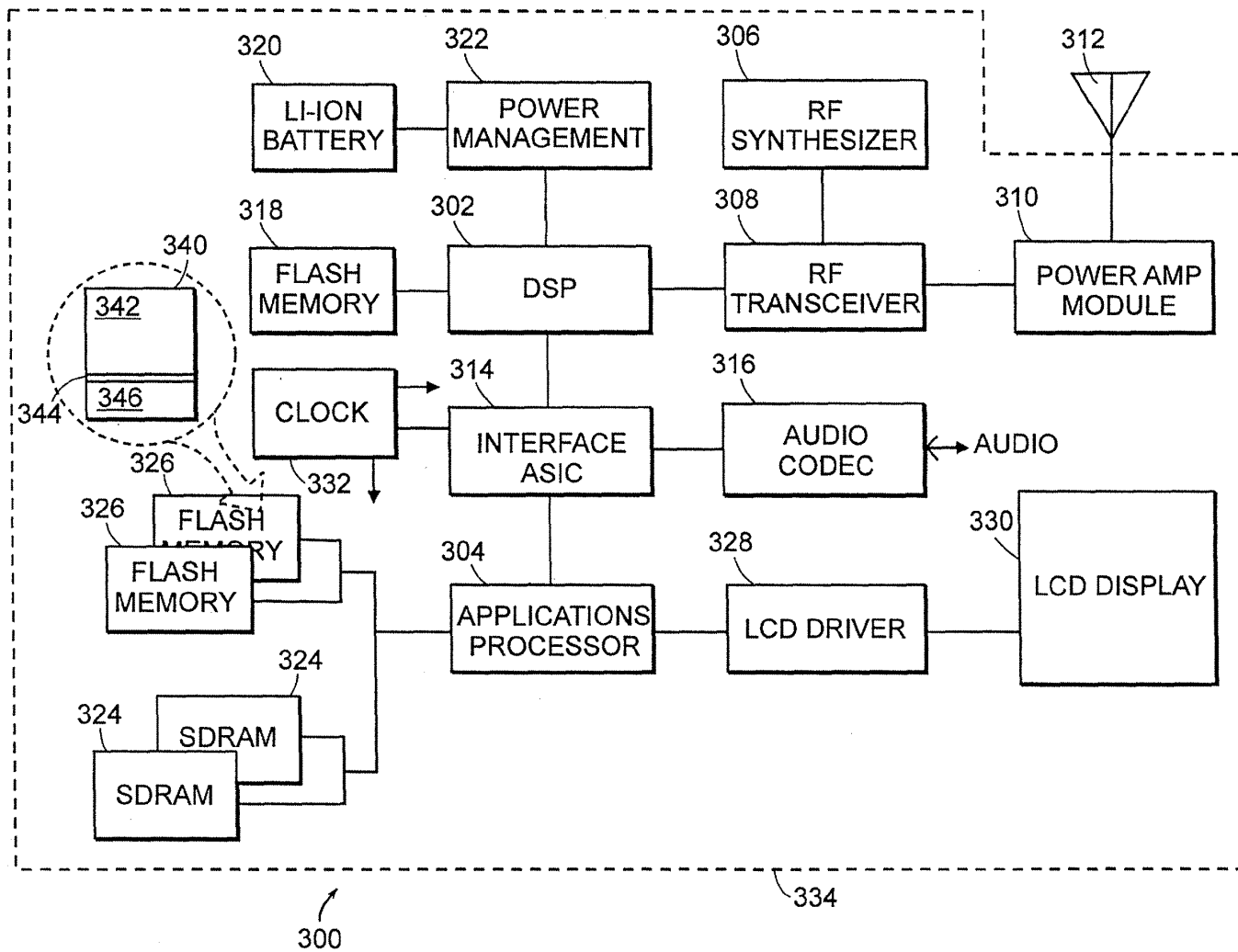


FIG. 3

Electronic Patent Application Fee Transmittal				
Application Number:				
Filing Date:				
Title of Invention:		VOICE OVER SHORT MESSAGE SERVICE		
First Named Inventor/Applicant Name:		Daniel L. Roth		
Filer:		Oliver Strimpel/Fay Guarino		
Attorney Docket Number:		0112855.00141 US3		
Filed as Large Entity				
Utility Filing Fees				
Description	Fee Code	Quantity	Amount	Sub-Total in USD(\$)
Basic Filing:				
Utility application filing	1011	1	310	310
Utility Search Fee	1111	1	510	510
Utility Examination Fee	1311	1	210	210
Pages:				
Claims:				
Miscellaneous-Filing:				
Petition:				
Patent-Appeals-and-Interference:				

Description	Fee Code	Quantity	Amount	Sub-Total in USD(\$)
Post-Allowance-and-Post-Issuance:				
Extension-of-Time:				
Miscellaneous:				
Total in USD (\$)				1030

Electronic Acknowledgement Receipt

EFS ID:	3521628
Application Number:	12146892
International Application Number:	
Confirmation Number:	5975
Title of Invention:	VOICE OVER SHORT MESSAGE SERVICE
First Named Inventor/Applicant Name:	Daniel L. Roth
Customer Number:	23483
Filer:	Oliver Strimpel/Fay Guarino
Filer Authorized By:	Oliver Strimpel
Attorney Docket Number:	0112855.00141 US3
Receipt Date:	26-JUN-2008
Filing Date:	
Time Stamp:	15:26:22
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	yes
Payment Type	Deposit Account
Payment was successfully received in RAM	\$ 1030
RAM confirmation Number	869
Deposit Account	080219
Authorized User	
The Director of the USPTO is hereby authorized to charge indicated fees and credit any overpayment as follows:	
Charge any Additional Fees required under 37 C.F.R. Section 1.17 (Patent application and reexamination processing fees)	
Charge any Additional Fees required under 37 C.F.R. Section 1.21 (Miscellaneous fees and charges)	

File Listing:					
Document Number	Document Description	File Name	File Size(Bytes) /Message Digest	Multi Part /.zip	Pages (if appl.)
1	Application Data Sheet	0112855_00141US3_ADS_06262008.pdf	1155002	no	4
			5a6d59ba051bd9fe108e23a7896d06f e6867c1b		
Warnings:					
Information:					
2		0112855_00141US3_Spec_and_Figures_06262008.pdf	1142061	yes	19
			8206ba f51ba f1cb ed17d733d714f60f3f b8c43b		
	Multipart Description/PDF files in .zip description				
	Document Description		Start	End	
	Specification		1	12	
	Claims		13	15	
	Abstract		16	16	
	Drawings-only black and white line drawings		17	19	
Warnings:					
Information:					
3	Fee Worksheet (PTO-06)	fee-info.pdf	8359	no	2
			5c2014222dff54496c4574d886a49439 b71a2c29		
Warnings:					
Information:					
Total Files Size (in bytes):			2305422		

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If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application.

National Stage of an International Application under 35 U.S.C. 371

If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.

New International Application Filed with the USPTO as a Receiving Office

If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.

Filing Date: 06/26/08

PTO/SB/06 (12-04)

Approved for use through 7/31/2006. OMB 0651-0032

U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

PATENT APPLICATION FEE DETERMINATION RECORD					Application or Docket Number	
Substitute for Form PTO-875					12/146,892	
APPLICATION AS FILED – PART I						
(Column 1)		(Column 2)		SMALL ENTITY		OR
OTHER THAN SMALL ENTITY						
FOR	NUMBER FILED	NUMBER EXTRA	RATE (\$)	FEE (\$)	RATE (\$)	FEE (\$)
BASIC FEE (37 CFR 1.16(a), (b), or (c))	N/A	N/A	N/A		N/A	310
SEARCH FEE (37 CFR 1.16(k), (l), or (m))	N/A	N/A	N/A		N/A	510
EXAMINATION FEE (37 CFR 1.16(o), (p), or (q))	N/A	N/A	N/A		N/A	210
TOTAL CLAIMS (37 CFR 1.16(i))	18	minus 20 =	X\$ 25		X\$50	
INDEPENDENT CLAIMS (37 CFR 1.16(h))	2	minus 3 = *	X\$105		X\$210	
APPLICATION SIZE FEE (37 CFR 1.16(s))	If the specification and drawings exceed 100 sheets of paper, the application size fee due is \$260 (\$130 for small entity) for each additional 50 sheets or fraction thereof. See 35 U.S.C. 41(a)(1)(G) and 37 CFR					
MULTIPLE DEPENDENT CLAIM PRESENT (37 CFR 1.16(j))			185		370	
			TOTAL		TOTAL	1030
* If the difference in column 1 is less than zero, enter "0" in column 2.						
APPLICATION AS AMENDED – PART II						
(Column 1)		(Column 2)		(Column 3)		
AMENDMENT A	CLAIMS REMAINING AFTER AMENDMENT	HIGHEST NUMBER PREVIOUSLY PAID FOR	PRESENT EXTRA	SMALL ENTITY		OR
	Total (37 CFR 1.16(i))	*	Minus **	=	RATE (\$)	ADDITIONAL FEE (\$)
	Independent (37 CFR 1.16(h))	*	Minus ***	=	X =	
	Application Size Fee (37 CFR 1.16(s))			X =		
	FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))			N/A		
			TOTAL		TOTAL	
			ADD'T FEE		ADD'T FEE	
(Column 1)		(Column 2)		(Column 3)		
AMENDMENT B	CLAIMS REMAINING AFTER AMENDMENT	HIGHEST NUMBER PREVIOUSLY PAID FOR	PRESENT EXTRA	SMALL ENTITY		OR
	Total (37 CFR 1.16(i))	*	Minus **	=	RATE (\$)	ADDITIONAL FEE (\$)
	Independent (37 CFR 1.16(h))	*	Minus ***	=	X =	
	Application Size Fee (37 CFR 1.16(s))			X =		
	FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))			N/A		
			TOTAL		TOTAL	
			ADD'T FEE		ADD'T FEE	
* If the entry in column 1 is less than the entry in column 2, write "0" in column 3. ** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 20, enter "20". *** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 3, enter "3". The "Highest Number Previously Paid For" (Total or Independent) is the highest number found in the appropriate box in column 1.						

This collection of information is required by 37 CFR 1.16. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

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UNITED STATES DEPARTMENT OF COMMERCE
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APPLICATION NUMBER	FILING OR 371(C) DATE	FIRST NAMED APPLICANT	ATTY. DOCKET NO./TITLE
12/146,892	06/26/2008	Daniel L. ROTH	0112855.00141US3

CONFIRMATION NO. 5975

FORMALITIES LETTER

23483
WILMERHALE/BOSTON
60 STATE STREET
BOSTON, MA 02109



OC000000030926787

Date Mailed: 07/16/2008

NOTICE TO FILE MISSING PARTS OF NONPROVISIONAL APPLICATION

FILED UNDER 37 CFR 1.53(b)

Filing Date Granted

Items Required To Avoid Abandonment:

An application number and filing date have been accorded to this application. The item(s) indicated below, however, are missing. Applicant is given **TWO MONTHS** from the date of this Notice within which to file all required items and pay any fees required below to avoid abandonment. Extensions of time may be obtained by filing a petition accompanied by the extension fee under the provisions of 37 CFR 1.136(a).

- The oath or declaration is missing.

A properly signed oath or declaration in compliance with 37 CFR 1.63, identifying the application by the above Application Number and Filing Date, is required.

Note: If a petition under 37 CFR 1.47 is being filed, an oath or declaration in compliance with 37 CFR 1.63 signed by all available joint inventors, or if no inventor is available by a party with sufficient proprietary interest, is required.

The applicant needs to satisfy supplemental fees problems indicated below.

The required item(s) identified below must be timely submitted to avoid abandonment:

- To avoid abandonment, a surcharge (for late submission of filing fee, search fee, examination fee or oath or declaration) as set forth in 37 CFR 1.16(f) of **\$130** for a non-small entity, must be submitted with the missing items identified in this notice.

SUMMARY OF FEES DUE:

Total additional fee(s) required for this application is **\$130** for a non-small entity

- **\$130** Surcharge.

Replies should be mailed to:

Mail Stop Missing Parts
Commissioner for Patents
P.O. Box 1450
Alexandria VA 22313-1450

Registered users of EFS-Web may alternatively submit their reply to this notice via EFS-Web.

<https://sportal.uspto.gov/authenticate/AuthenticateUserLocalEPF.html>

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If you are not using EFS-Web to submit your reply, you must include a copy of this notice.

/pwallace sr/

Office of Data Management, Application Assistance Unit (571) 272-4000, or (571) 272-4200, or 1-888-786-0101



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APPLICATION NUMBER	FILING or 371(c) DATE	GRP ART UNIT	FIL FEE REC'D	ATTY. DOCKET NO	TOT CLAIMS	IND CLAIMS
12/146,892	06/26/2008	2617	1030	0112855.00141US3	18	2

CONFIRMATION NO. 5975

23483
WILMERHALE/BOSTON
60 STATE STREET
BOSTON, MA 02109

FILING RECEIPT



OC000000030926786

Date Mailed: 07/16/2008

Receipt is acknowledged of this non-provisional patent application. The application will be taken up for examination in due course. Applicant will be notified as to the results of the examination. Any correspondence concerning the application must include the following identification information: the U.S. APPLICATION NUMBER, FILING DATE, NAME OF APPLICANT, and TITLE OF INVENTION. Fees transmitted by check or draft are subject to collection. Please verify the accuracy of the data presented on this receipt. **If an error is noted on this Filing Receipt, please submit a written request for a Filing Receipt Correction. Please provide a copy of this Filing Receipt with the changes noted thereon. If you received a "Notice to File Missing Parts" for this application, please submit any corrections to this Filing Receipt with your reply to the Notice. When the USPTO processes the reply to the Notice, the USPTO will generate another Filing Receipt incorporating the requested corrections**

Applicant(s)

Daniel L. ROTH, Boston, MA;

Power of Attorney: None

Domestic Priority data as claimed by applicant

This application is a DIV of 11/110,371 04/20/2005 PAT 7,395,078
which claims benefit of 60/563,754 04/20/2004

Foreign Applications

If Required, Foreign Filing License Granted: 07/11/2008

The country code and number of your priority application, to be used for filing abroad under the Paris Convention, is **US 12/146,892**

Projected Publication Date: To Be Determined - pending completion of Missing Parts

Non-Publication Request: No

Early Publication Request: No

Title

VOICE OVER SHORT MESSAGE SERVICE

Preliminary Class

455

PROTECTING YOUR INVENTION OUTSIDE THE UNITED STATES

Since the rights granted by a U.S. patent extend only throughout the territory of the United States and have no effect in a foreign country, an inventor who wishes patent protection in another country must apply for a patent in a specific country or in regional patent offices. Applicants may wish to consider the filing of an international application under the Patent Cooperation Treaty (PCT). An international (PCT) application generally has the same effect as a regular national patent application in each PCT-member country. The PCT process **simplifies** the filing of patent applications on the same invention in member countries, but **does not result** in a grant of "an international patent" and does not eliminate the need of applicants to file additional documents and fees in countries where patent protection is desired.

Almost every country has its own patent law, and a person desiring a patent in a particular country must make an application for patent in that country in accordance with its particular laws. Since the laws of many countries differ in various respects from the patent law of the United States, applicants are advised to seek guidance from specific foreign countries to ensure that patent rights are not lost prematurely.

Applicants also are advised that in the case of inventions made in the United States, the Director of the USPTO must issue a license before applicants can apply for a patent in a foreign country. The filing of a U.S. patent application serves as a request for a foreign filing license. The application's filing receipt contains further information and guidance as to the status of applicant's license for foreign filing.

Applicants may wish to consult the USPTO booklet, "General Information Concerning Patents" (specifically, the section entitled "Treaties and Foreign Patents") for more information on timeframes and deadlines for filing foreign patent applications. The guide is available either by contacting the USPTO Contact Center at 800-786-9199, or it can be viewed on the USPTO website at <http://www.uspto.gov/web/offices/pac/doc/general/index.html>.

For information on preventing theft of your intellectual property (patents, trademarks and copyrights), you may wish to consult the U.S. Government website, <http://www.stopfakes.gov>. Part of a Department of Commerce initiative, this website includes self-help "toolkits" giving innovators guidance on how to protect intellectual property in specific countries such as China, Korea and Mexico. For questions regarding patent enforcement issues, applicants may call the U.S. Government hotline at 1-866-999-HALT (1-866-999-4158).

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page 2 of 3

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NOT GRANTED

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Docket No.: 0112855.00141US3
(PATENT)

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant:	Daniel L. ROTH	Confirmation No.:	5975
Application No.:	12/146,892	Art Unit:	Not Yet Assigned
Filed:	June 26, 2008	Examiner:	Not Yet Assigned
Title:	VOICE OVER SHORT MESSAGE SERVICE		

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

RESPONSE TO NOTICE TO FILE MISSING PARTS OF APPLICATION

Dear Sir:

In response to the Notice to File Missing Parts of Application – Filing Date Granted mailed July 16, 2008, Applicant respectfully submits a Combined Declaration and Power of Attorney, executed in the corresponding parent case U.S. Patent No. 7,395,078, Granted July 1, 2008. Also enclosed is a Petition for Extension of Time.

Please charge our Deposit Account No. 08-0219 in the amount of \$250.00 covering the total required fees. The Director is hereby authorized to charge any deficiency in the fees filed, asserted to be filed or which should have been filed herewith (or with any paper hereafter filed in this application by this firm) to our Deposit Account No. 08-0219, under Order No. 0112855.00141US3.

Respectfully submitted,

Dated: September 25, 2008

/Eric L. Prah/
Eric L. Prah
Registration No.: 32,590
Attorney for Applicant(s)

Wilmer Cutler Pickering Hale and Dorr LLP
60 State Street
Boston, Massachusetts 02109
(617) 526-6000 (telephone)
(617) 526-5000 (facsimile)

6759497
US1DOCS 6759497v1

PETITION FOR EXTENSION OF TIME UNDER 37 CFR 1.136(a) FY 2008 <i>(Fees pursuant to the Consolidated Appropriations Act, 2005 (H.R. 4818).)</i>		Docket Number (Optional) 0112855.00141US3																									
Application Number 12/146,892-Conf. #5975		Filed June 26, 2008																									
For VOICE OVER SHORT MESSAGE SERVICE																											
Art Unit 2617		Examiner Not Yet Assigned																									
This is a request under the provisions of 37 CFR 1.136(a) to extend the period for filing a reply in the above identified application. The requested extension and fee are as follows (check time period desired and enter the appropriate fee below): <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 15%; text-align: center;"><u>Fee</u></th> <th style="width: 15%; text-align: center;"><u>Small Entity Fee</u></th> <th style="width: 30%;"></th> </tr> </thead> <tbody> <tr> <td>☒ One month (37 CFR 1.17(a)(1))</td> <td style="text-align: center;">\$120</td> <td style="text-align: center;">\$60</td> <td style="text-align: right;">\$ 120.00</td> </tr> <tr> <td>☐ Two months (37 CFR 1.17(a)(2))</td> <td style="text-align: center;">\$460</td> <td style="text-align: center;">\$230</td> <td style="text-align: right;">\$ _____</td> </tr> <tr> <td>☐ Three months (37 CFR 1.17(a)(3))</td> <td style="text-align: center;">\$1050</td> <td style="text-align: center;">\$525</td> <td style="text-align: right;">\$ _____</td> </tr> <tr> <td>☐ Four months (37 CFR 1.17(a)(4))</td> <td style="text-align: center;">\$1640</td> <td style="text-align: center;">\$820</td> <td style="text-align: right;">\$ _____</td> </tr> <tr> <td>☐ Five months (37 CFR 1.17(a)(5))</td> <td style="text-align: center;">\$2230</td> <td style="text-align: center;">\$1115</td> <td style="text-align: right;">\$ _____</td> </tr> </tbody> </table> ☐ Applicant claims small entity status. See 37 CFR 1.27. ☐ A check in the amount of the fee is enclosed. ☐ Payment by credit card. Form PTO-2038 is attached. ☒ The Director has already been authorized to charge fees in this application to a Deposit Account. ☒ The Director is hereby authorized to charge any fees which may be required, or credit any overpayment, to Deposit Account Number <u>08-0219</u>. WARNING: Information on this form may become public. Credit card information should not be included on this form. Provide credit card information and authorization on PTO-2038. I am the ☐ applicant/inventor. ☐ assignee of record of the entire interest. See 37 CFR 3.71. Statement under 37 CFR 3.73(b) is enclosed. (Form PTO/SB/96). ☒ attorney or agent of record. Registration Number <u>32,590</u> ☐ attorney or agent under 37 CFR 1.34. Registration number if acting under 37 CFR 1.34 _____ _____ /Eric L. Prah/ Signature _____ Eric L. Prah Typed or printed name _____ September 25, 2008 Date _____ (617) 526-6000 Telephone Number NOTE: Signatures of all the inventors or assignees of record of the entire interest or their representative(s) are required. Submit multiple forms if more than one signature is required, see below. ☒ Total of <u>1</u> forms are submitted.					<u>Fee</u>	<u>Small Entity Fee</u>		☒ One month (37 CFR 1.17(a)(1))	\$120	\$60	\$ 120.00	☐ Two months (37 CFR 1.17(a)(2))	\$460	\$230	\$ _____	☐ Three months (37 CFR 1.17(a)(3))	\$1050	\$525	\$ _____	☐ Four months (37 CFR 1.17(a)(4))	\$1640	\$820	\$ _____	☐ Five months (37 CFR 1.17(a)(5))	\$2230	\$1115	\$ _____
	<u>Fee</u>	<u>Small Entity Fee</u>																									
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☐ Five months (37 CFR 1.17(a)(5))	\$2230	\$1115	\$ _____																								

DECLARATION AND POWER OF ATTORNEY
(Attorney Docket No: 112855.141 (US2))

As below-named inventor, I hereby declare that:

My residence, post office address and citizenship are as stated below next to my name.

I believe that I am the original, and only inventor of the subject matter which is claimed and for which a patent is sought on the invention entitled:

VOICE OVER SHORT MESSAGE SERVICE

the specification of which (check only one):

☐ is attached hereto.

☒ was filed as United States Patent Application
Serial No. 11/110,371 on April 20, 2005

☐ was filed as PCT Patent Application Serial No. _____ on _____
and was amended under PCT Article 19 on _____ (if applicable)

I hereby state that I have reviewed and understand the contents of the above-identified specification, including the claims, as amended by any amendment referred to above.

I acknowledge the duty to disclose information which is material to the patentability of the claims of this application in accordance with Title 37, CFR §1.56(a) and §1.56(b).

I hereby claim foreign priority benefits under Title 35, United States Code, §119(a)-(e) or 365(b) of any foreign application(s) for patent or inventor's certificate or 365(a) of any PCT international application(s) designating at least one country other than the United States of America listed below and have also identified below any foreign application(s) for patent or inventor's certificate or any PCT international application(s) designating at least one country other than the United States of America filed by us on the same subject matter having a filing date before that of the application(s) of which priority is claimed:

**PRIOR FOREIGN/PCT APPLICATION(S) AND ANY PRIORITY CLAIMS
UNDER 35 U.S.C. §119(a)-(d) or 365(b), or 365(a):**

COUNTRY (if PCT indicate PCT)	APPLICATION NUMBER	DATE OF FILING	PRIORITY CLAIMED UNDER 35 U.S.C. §119 (YES/NO)

ROTH, Daniel L.
U.S.S.N. 11/110,371

I hereby claim benefit under 35 U.S.C. §119(e) of any United States provisional application(s) listed below:

APPLICATION NUMBER	DATE OF FILING	STATUS: PENDING OR ABANDONED
60/563,754	April 20, 2004	Abandoned

I hereby claim the benefit under Title 35, United States Code, §120 of any United States application(s) or 365(c) of any PCT international application(s) designating the United States of America that is/are listed below and, insofar as the subject matter of each of the claims of this application is not disclosed in that/those prior application(s) in the manner provided by the first paragraph of Title 35, United States Code, §112, we acknowledge the duty to disclose material information as defined in Title 37, Code of Federal Regulations, §1.56 which occurred between the filing date of the prior applications and the national or PCT international filing date of this application:

**PRIOR U.S. APPLICATION OR PCT INTERNATIONAL APPLICATION(S)
DESIGNATING THE U.S. FOR BENEFIT UNDER 35 U.S.C. §120 or 365(c):**

APPLICATION NUMBER	DATE OF FILING (day, month, year)	STATUS: (PATENTED, PENDING OR ABANDONED)

POWER OF ATTORNEY: As named inventor, I hereby appoint the following attorneys and/or agents to prosecute this application and transact all business in the Patent and Trademark Office connected therewith.

CUSTOMER NUMBER 23483

the mailing address and telephone number of each of whom is c/o Wilmer Cutler Pickering Hale and Dorr LLP, 60 State Street, Boston, Massachusetts 02109 U.S.A., (617) 526-6000.

Send Correspondence to:

Eric L. Prah
Wilmer Cutler Pickering Hale and Dorr LLP
60 State Street
Boston, Massachusetts 02109

Direct Telephone Calls to:

Eric L. Prah
(617) 526-6043 Phone
(617) 526-5000 Facsimile

Wherefore, I petition that letters patent be granted to me for the invention or discovery described and claimed in the attached specification and claims, and hereby subscribe my name to said specification and claims and to the foregoing declaration, power of attorney, and this petition.

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by

ROTH, Daniel L.
U.S.S.N. 11/110,371

fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

Full name of sole inventor: Daniel L. Roth

Inventor's signature



Date

June 14 2003

Citizenship:

United States of America

Residence:

20 Tileston Street, #3M, Boston, Massachusetts 02113-1957

Post Office Address: Same

Electronic Patent Application Fee Transmittal				
Application Number:		12146892		
Filing Date:		26-Jun-2008		
Title of Invention:		VOICE OVER SHORT MESSAGE SERVICE		
First Named Inventor/Applicant Name:		Daniel L. ROTH		
Filer:		Eric L Prah/Kathleen Bastarache		
Attorney Docket Number:		0112855.00141US3		
Filed as Large Entity				
Utility under 35 USC 111(a) Filing Fees				
Description	Fee Code	Quantity	Amount	Sub-Total in USD(\$)
Basic Filing:				
Pages:				
Claims:				
Miscellaneous-Filing:				
Late filing fee for oath or declaration	1051	1	130	130
Petition:				
Patent-Appeals-and-Interference:				
Post-Allowance-and-Post-Issuance:				
Extension-of-Time:				

Description	Fee Code	Quantity	Amount	Sub-Total in USD(\$)
Extension - 1 month with \$0 paid	1251	1	120	120
Miscellaneous:				
Total in USD (\$)				250

Electronic Acknowledgement Receipt	
EFS ID:	4002157
Application Number:	12146892
International Application Number:	
Confirmation Number:	5975
Title of Invention:	VOICE OVER SHORT MESSAGE SERVICE
First Named Inventor/Applicant Name:	Daniel L. ROTH
Customer Number:	23483
Filer:	Eric L Prah/Kathleen Bastarache
Filer Authorized By:	Eric L Prah
Attorney Docket Number:	0112855.00141US3
Receipt Date:	25-SEP-2008
Filing Date:	26-JUN-2008
Time Stamp:	15:52:18
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	yes
Payment Type	Deposit Account
Payment was successfully received in RAM	\$250
RAM confirmation Number	1220
Deposit Account	080219
Authorized User	

File Listing:

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
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1	Applicant Response to Pre-Exam Formalities Notice	0112855_141US3_RESPONSE.pdf	88965 72d518ce9c563141784a8a61b200fe59872d797c	no	1
Warnings:					
Information:					
2	Extension of Time	0112855_141US3_EOT.pdf	114078 97a02ffdb2d8644aa72e17622d4ea47f8f4a5587	no	1
Warnings:					
Information:					
3	Oath or Declaration filed	0112855_141US3_DECLARATION.pdf	177827 e77d12dea96d668588dd75984a8e84cc01e49d8c	no	3
Warnings:					
Information:					
4	Fee Worksheet (PTO-06)	fee-info.pdf	32314 77ce941b3da157bbe4bf1996c6eda9e66d7d5c31	no	2
Warnings:					
Information:					
Total Files Size (in bytes):			413184		
This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503. <u>New Applications Under 35 U.S.C. 111</u> If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application. <u>National Stage of an International Application under 35 U.S.C. 371</u> If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course. <u>New International Application Filed with the USPTO as a Receiving Office</u> If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.					



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NUMBER	FILING or 371(c) DATE	GRP ART UNIT	FIL FEE REC'D	ATTY. DOCKET NO	TOT CLAIMS	IND CLAIMS
12/146,892	06/26/2008	2617	1160	0112855.00141US3	18	2

CONFIRMATION NO. 5975

UPDATED FILING RECEIPT



OC000000032399497

23483
WILMERHALE/BOSTON
60 STATE STREET
BOSTON, MA 02109

Date Mailed: 10/06/2008

Receipt is acknowledged of this non-provisional patent application. The application will be taken up for examination in due course. Applicant will be notified as to the results of the examination. Any correspondence concerning the application must include the following identification information: the U.S. APPLICATION NUMBER, FILING DATE, NAME OF APPLICANT, and TITLE OF INVENTION. Fees transmitted by check or draft are subject to collection. Please verify the accuracy of the data presented on this receipt. **If an error is noted on this Filing Receipt, please submit a written request for a Filing Receipt Correction. Please provide a copy of this Filing Receipt with the changes noted thereon. If you received a "Notice to File Missing Parts" for this application, please submit any corrections to this Filing Receipt with your reply to the Notice. When the USPTO processes the reply to the Notice, the USPTO will generate another Filing Receipt incorporating the requested corrections**

Applicant(s)

Daniel L. ROTH, Boston, MA;

Power of Attorney: The patent practitioners associated with Customer Number 23483

Domestic Priority data as claimed by applicant

This application is a DIV of 11/110,371 04/20/2005 PAT 7,395,078
which claims benefit of 60/563,754 04/20/2004

Foreign Applications

If Required, Foreign Filing License Granted: 07/11/2008

The country code and number of your priority application, to be used for filing abroad under the Paris Convention, is **US 12/146,892**

Projected Publication Date: 01/15/2009

Non-Publication Request: No

Early Publication Request: No

Title

VOICE OVER SHORT MESSAGE SERVICE

Preliminary Class

455

PROTECTING YOUR INVENTION OUTSIDE THE UNITED STATES

Since the rights granted by a U.S. patent extend only throughout the territory of the United States and have no effect in a foreign country, an inventor who wishes patent protection in another country must apply for a patent in a specific country or in regional patent offices. Applicants may wish to consider the filing of an international application under the Patent Cooperation Treaty (PCT). An international (PCT) application generally has the same effect as a regular national patent application in each PCT-member country. The PCT process **simplifies** the filing of patent applications on the same invention in member countries, but **does not result** in a grant of "an international patent" and does not eliminate the need of applicants to file additional documents and fees in countries where patent protection is desired.

Almost every country has its own patent law, and a person desiring a patent in a particular country must make an application for patent in that country in accordance with its particular laws. Since the laws of many countries differ in various respects from the patent law of the United States, applicants are advised to seek guidance from specific foreign countries to ensure that patent rights are not lost prematurely.

Applicants also are advised that in the case of inventions made in the United States, the Director of the USPTO must issue a license before applicants can apply for a patent in a foreign country. The filing of a U.S. patent application serves as a request for a foreign filing license. The application's filing receipt contains further information and guidance as to the status of applicant's license for foreign filing.

Applicants may wish to consult the USPTO booklet, "General Information Concerning Patents" (specifically, the section entitled "Treaties and Foreign Patents") for more information on timeframes and deadlines for filing foreign patent applications. The guide is available either by contacting the USPTO Contact Center at 800-786-9199, or it can be viewed on the USPTO website at <http://www.uspto.gov/web/offices/pac/doc/general/index.html>.

For information on preventing theft of your intellectual property (patents, trademarks and copyrights), you may wish to consult the U.S. Government website, <http://www.stopfakes.gov>. Part of a Department of Commerce initiative, this website includes self-help "toolkits" giving innovators guidance on how to protect intellectual property in specific countries such as China, Korea and Mexico. For questions regarding patent enforcement issues, applicants may call the U.S. Government hotline at 1-866-999-HALT (1-866-999-4158).

LICENSE FOR FOREIGN FILING UNDER**Title 35, United States Code, Section 184****Title 37, Code of Federal Regulations, 5.11 & 5.15****GRANTED**

The applicant has been granted a license under 35 U.S.C. 184, if the phrase "IF REQUIRED, FOREIGN FILING LICENSE GRANTED" followed by a date appears on this form. Such licenses are issued in all applications where the conditions for issuance of a license have been met, regardless of whether or not a license may be required as

page 2 of 3

set forth in 37 CFR 5.15. The scope and limitations of this license are set forth in 37 CFR 5.15(a) unless an earlier license has been issued under 37 CFR 5.15(b). The license is subject to revocation upon written notification. The date indicated is the effective date of the license, unless an earlier license of similar scope has been granted under 37 CFR 5.13 or 5.14.

This license is to be retained by the licensee and may be used at any time on or after the effective date thereof unless it is revoked. This license is automatically transferred to any related applications(s) filed under 37 CFR 1.53(d). This license is not retroactive.

The grant of a license does not in any way lessen the responsibility of a licensee for the security of the subject matter as imposed by any Government contract or the provisions of existing laws relating to espionage and the national security or the export of technical data. Licensees should apprise themselves of current regulations especially with respect to certain countries, of other agencies, particularly the Office of Defense Trade Controls, Department of State (with respect to Arms, Munitions and Implements of War (22 CFR 121-128)); the Bureau of Industry and Security, Department of Commerce (15 CFR parts 730-774); the Office of Foreign AssetsControl, Department of Treasury (31 CFR Parts 500+) and the Department of Energy.

NOT GRANTED

No license under 35 U.S.C. 184 has been granted at this time, if the phrase "IF REQUIRED, FOREIGN FILING LICENSE GRANTED" DOES NOT appear on this form. Applicant may still petition for a license under 37 CFR 5.12, if a license is desired before the expiration of 6 months from the filing date of the application. If 6 months has lapsed from the filing date of this application and the licensee has not received any indication of a secrecy order under 35 U.S.C. 181, the licensee may foreign file the application pursuant to 37 CFR 5.15(b).

Substitute for form 1449A/PTO INFORMATION DISCLOSURE STATEMENT BY APPLICANT <i>(Use as many sheets as necessary)</i>				Complete if Known	
				Application Number	12/146,892-Conf. #5975
				Filing Date	June 26, 2008
				First Named Inventor	Daniel L. ROTH
				Art Unit	2617
				Examiner Name	Not Yet Assigned
Sheet	1	of	1	Attorney Docket Number	0112855.00141US3

U.S. PATENT DOCUMENTS					
Examiner Initials*	Cite No. ¹	Document Number	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number-Kind Code ² (if known)			
	AA*	US-2002/0142787-A1	10-03-2002	Holley et al.	
	AB*	US-2003/0014253-A1	01-16-2003	WALSH	
	AC*	US-2003/0088418-A1	05-08-2003	Kagoshima et al.	
	AD*	US-2003/0139922-A1	07-24-2003	Hoffmann et al.	
	AE*	US-6,163,765	12-19-2000	Andric et al.	
	AF*	US-6,760,703	07-06-2004	Kagoshima et al.	
	AG*	US-2002/0077811	06-20-2002	Koenig et al.	
	AH*	US-2002/0102966-A1	08-01-2002	Lev et al.	
	AI*	US-2002/0103646	08-01-2002	Kochanski et al.	

FOREIGN PATENT DOCUMENTS					
Examiner Initials*	Cite No. ¹	Foreign Patent Document	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages Or Relevant Figures Appear
		Country Code ³ -Number ⁴ -Kind Code ⁵ (if known)			
					T ⁶

NON PATENT LITERATURE DOCUMENTS			
Examiner Initials*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²
	CA*	International Searching Authority, International Search Report for PCT/US05/13478, mailed 28 Mar 2007, 4 pages	
	CB*	MASURKO, T. et al., "A Very Low Bit Rate Speech Coder Using HMM with Speaker Adaption", Ministry of Education, Science and Culture of Japan, Grant-in-Aid for Encouragement of Young Scientists, 09750399, 1997, 4 pages	
	CC*	PAGARKAR, M. H. et al., "Language Independent Speech Compression using Devanagari Phonetics", V.E.S. Institute of Technology, 7 pages	

Examiner Signature		Date Considered	
-----------------------	--	--------------------	--

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. * CITE NO.: Those application(s) which are marked with an single asterisk (*) next to the Cite No. are not supplied (under 37 CFR 1.98(a)(2)(iii)) because that application was filed after June 30, 2003 or is available in the IFW. ¹ Applicant's unique citation designation number (optional). ² See Kinds Codes of USPTO Patent Documents at www.uspto.gov or MPEP 901.04. ³ Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. ⁶ Applicant is to place a check mark here if English language Translation is attached.

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant:	Daniel L. ROTH	Confirmation No.:	5975
Application No.:	12/146,892	Art Unit:	2617
Filed:	June 26, 2008	Examiner:	Not Yet Assigned
Title:	VOICE OVER SHORT MESSAGE SERVICE		

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

INFORMATION DISCLOSURE STATEMENT (IDS)

Dear Sir:

This Information Disclosure Statement is being filed prior to the mailing date of a first Office Action on the merits. No fee is required. This application is a divisional of U.S. Serial No. 11/110371, April 20, 2005, (now granted Patent No. 7,395,078). Copies of the marked (**) references were previously disclosed in the parent application, and are therefore not included with this filing.

Applicants request that the Examiner initial and return a copy of the enclosed Form PTO SB-08 with the next communication.

Applicant believes no fee is due with this response. However, if a fee is due, please charge our Deposit Account No. 08-0219, under Order No. 0112855.00141US3 from which the undersigned is authorized to draw.

Dated: November 19, 2008

Wilmer Cutler Pickering Hale and Dorr LLP
60 State Street
Boston, Massachusetts 02109
(617) 526-6000 (telephone)
(617) 526-5000 (facsimile)

Respectfully submitted,
/Eric L. Prah/

Eric L. Prah
Registration No.: 32,590
Attorney for Applicant(s)

Electronic Acknowledgement Receipt	
EFS ID:	4290351
Application Number:	12146892
International Application Number:	
Confirmation Number:	5975
Title of Invention:	VOICE OVER SHORT MESSAGE SERVICE
First Named Inventor/Applicant Name:	Daniel L. ROTH
Customer Number:	23483
Filer:	Eric L Pahl/Kathleen Bastarache
Filer Authorized By:	Eric L Pahl
Attorney Docket Number:	0112855.00141US3
Receipt Date:	19-NOV-2008
Filing Date:	26-JUN-2008
Time Stamp:	13:32:07
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	no
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File Listing:

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1	Information Disclosure Statement (IDS) Filed (SB/08)	SB08.pdf	119311 32691ab0e3f07755ad360dc3b328581cf7e e695c	no	1

Warnings:

Information:

This is not an USPTO supplied IDS fillable form

2	Information Disclosure Statement Letter	IDS.pdf	88728	no	1
			2d6b82c060a2bed17c9d7f1aac73583283a14279		

Warnings:

Information:

Total Files Size (in bytes):	208039
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This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503.

New Applications Under 35 U.S.C. 111

If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application.

National Stage of an International Application under 35 U.S.C. 371

If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.

New International Application Filed with the USPTO as a Receiving Office

If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
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www.uspto.gov

APPLICATION NUMBER	FILING OR 371(C) DATE	FIRST NAMED APPLICANT	ATTY. DOCKET NO./TITLE
12/146,892	06/26/2008	Daniel L. ROTH	0112855.00141US3

CONFIRMATION NO. 5975

23483
WILMERHALE/BOSTON
60 STATE STREET
BOSTON, MA 02109

PUBLICATION NOTICE



OC000000034077002

Title:VOICE OVER SHORT MESSAGE SERVICE

Publication No.US-2009-0017849-A1

Publication Date:01/15/2009

NOTICE OF PUBLICATION OF APPLICATION

The above-identified application will be electronically published as a patent application publication pursuant to 37 CFR 1.211, et seq. The patent application publication number and publication date are set forth above.

The publication may be accessed through the USPTO's publically available Searchable Databases via the Internet at www.uspto.gov. The direct link to access the publication is currently <http://www.uspto.gov/patft/>.

The publication process established by the Office does not provide for mailing a copy of the publication to applicant. A copy of the publication may be obtained from the Office upon payment of the appropriate fee set forth in 37 CFR 1.19(a)(1). Orders for copies of patent application publications are handled by the USPTO's Office of Public Records. The Office of Public Records can be reached by telephone at (703) 308-9726 or (800) 972-6382, by facsimile at (703) 305-8759, by mail addressed to the United States Patent and Trademark Office, Office of Public Records, Alexandria, VA 22313-1450 or via the Internet.

In addition, information on the status of the application, including the mailing date of Office actions and the dates of receipt of correspondence filed in the Office, may also be accessed via the Internet through the Patent Electronic Business Center at www.uspto.gov using the public side of the Patent Application Information and Retrieval (PAIR) system. The direct link to access this status information is currently <http://pair.uspto.gov/>. Prior to publication, such status information is confidential and may only be obtained by applicant using the private side of PAIR.

Further assistance in electronically accessing the publication, or about PAIR, is available by calling the Patent Electronic Business Center at 1-866-217-9197.

Office of Data Management, Application Assistance Unit (571) 272-4000, or (571) 272-4200, or 1-888-786-0101

Substitute for form 1449/PTO				Complete if Known	
INFORMATION DISCLOSURE STATEMENT BY APPLICANT <i>(Use as many sheets as necessary)</i>				Application Number	12/146,892-Conf. #5975
				Filing Date	June 26, 2008
				First Named Inventor	Daniel L. ROTH
				Art Unit	N/A
				Examiner Name	Not Yet Assigned
Sheet	1	of	1	Attorney Docket Number	0112855.00141US3

U.S. PATENT DOCUMENTS					
Examiner Initials*	Cite No. ¹	Document Number	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number-Kind Code ² (if known)			
	AA*	US-2004/0213204	10-28-2004	Yang	

FOREIGN PATENT DOCUMENTS						
Examiner Initials*	Cite No. ¹	Foreign Patent Document	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages Or Relevant Figures Appear	T ⁶
		Country Code ³ -Number ⁴ -Kind Code ⁵ (if known)				

NON PATENT LITERATURE DOCUMENTS			
Examiner Initials*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²

Examiner Signature		Date Considered	
-----------------------	--	--------------------	--

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. ¹ Applicant's unique citation designation number (optional). ² See Kinds Codes of USPTO Patent Documents at www.uspto.gov or MPEP 901.04. ³ Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. ⁶ Applicant is to place a check mark here if English language translation is attached.

Electronic Acknowledgement Receipt	
EFS ID:	7279543
Application Number:	12146892
International Application Number:	
Confirmation Number:	5975
Title of Invention:	VOICE OVER SHORT MESSAGE SERVICE
First Named Inventor/Applicant Name:	Daniel L. ROTH
Customer Number:	23483
Filer:	Eric L Prah/ Fay Guarino
Filer Authorized By:	Eric L Prah
Attorney Docket Number:	0112855.00141US3
Receipt Date:	25-MAR-2010
Filing Date:	26-JUN-2008
Time Stamp:	19:49:06
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	no
------------------------	----

File Listing:

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1		0112855_141US3_IDS_Letter_and_SB08.pdf	126242 dce4e48050192af796539e7a7e8ba99b0643f7d	yes	3

	Multipart Description/PDF files in .zip description		
	Document Description	Start	End
	Transmittal Letter	1	2
	Information Disclosure Statement (IDS) Filed (SB/08)	3	3
Warnings:			
Information:			
Total Files Size (in bytes):		126242	
This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503. <u>New Applications Under 35 U.S.C. 111</u> If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application. <u>National Stage of an International Application under 35 U.S.C. 371</u> If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course. <u>New International Application Filed with the USPTO as a Receiving Office</u> If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.			

Docket No.: 0112855.00141 US3
(PATENT)

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant:	Daniel L. ROTH	Confirmation No.:	5975
Application No.:	12/146,892	Art Unit:	N/A
Filed:	June 26, 2008	Examiner:	Not Yet Assigned
Title:	VOICE OVER SHORT MESSAGE SERVICE		

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT (IDS)

Dear Sir:

This Information Disclosure Statement is being filed prior to the mailing date of a first Office Action on the merits. No fee is required.

Applicants request that the Examiner initial and return a copy of the enclosed Form PTO SB-08 with the next communication.

Application No.: 12/146,892

Docket No.: 0112855.00141US3

Applicant believes no fee is due with this response. However, if a fee is due, please charge our Deposit Account No. 08-0219, under Order No. 0112855.00141US3 from which the undersigned is authorized to draw.

Respectfully submitted,

Dated: *March 23, 2010*



Eric L. Prah
Registration No.: 32,590
Attorney for Applicant(s)

Wilmer Cutler Pickering Hale and Dorr LLP
60 State Street
Boston, Massachusetts 02109
(617) 526-6000 (telephone)
(617) 526-5000 (facsimile)

Atty Docket: See Exhibit A

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Application/Patent Numbers: See Exhibit A
Filing/Issue Dates: See Exhibit A
Titles: See Exhibit A

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

**POWER OF ATTORNEY BY ASSIGNEE AND REVOCATION OF PRIOR
POWERS AND CHANGE OF CORRESPONDENCE ADDRESS**

As an authorized representative of Assignee for the applications/patents
identified on the attached Exhibit A, I hereby revoke all powers of attorney previously
given and I hereby appoint the attorneys associated with

Customer Number 02101

as our attorneys and agents to prosecute and transact all business in the Patent and
Trademark Office connected therewith.

Please address all further communications to: **Customer No. 02101**

Voice Signal Technologies, Inc.

By:  Date: 10/17, 2010
Name: Leanne Fitzgerald
Title: ASSOCIATE GENERAL COUNSEL

EXHIBIT A

Attorney Docket Number	Predecessor Docket Number	Type	Status	Application Number	Filing Date	Patent Number	Issue date	Country	Title
2639/C23 PR1	112855.121 US1	PRO	Expired	60/431818	09-Dec-2002			US	PROVIDER-ACTIVATED SOFTWARE FOR MOBILE COMMUNICATION DEVICES
2639/C23 PR2	112855.121 US2	PRO	Expired	60/455244	17-Mar-2003			US	PROVIDER-ACTIVATED SOFTWARE FOR MOBILE COMMUNICATION DEVICES
2639/C23	112855.121 US3	ORD	Published	10/725673	03-Dec-2003			US	PROVIDER-ACTIVATED SOFTWARE FOR MOBILE COMMUNICATION DEVICES
2639/C24 PR1	112855.122 US1	PRO	Expired	60/442267	24-Jan-2003			US	PROSODIC MIMIC METHOD AND APPARATUS
2639/C24	112855.122 US2	ORD	Published	10/657421	08-Sep-2003			US	PROSODIC MIMIC METHOD AND APPARATUS
2639/C25 PR1	112855.124 US1	PRO	Expired	60/449195	21-Feb-2003			US	METHOD OF PRODUCING ALTERNATE UTTERANCE HYPOTHESES USING AUXILIARY INFORMATION ON CLOSE COMPETITORS
2639/C25	112855.124 US2	ORD	Granted	10/783518	20-Feb-2004	7676367	09-Mar-2010	US	METHOD OF PRODUCING ALTERNATE UTTERANCE HYPOTHESES USING AUXILIARY INFORMATION ON CLOSE COMPETITORS
2639/C26 PR1	112855.126 US1	PRO	Expired	60/469627	08-May-2003			US	A SIGNAL TO NOISE MEDIATED SPEECH RECOGNITION ALGORITHM
2639/C26	112855.126 US2	ORD	Abandoned	10/842333	10-May-2004			US	A SIGNAL TO NOISE MEDIATED SPEECH RECOGNITION ALGORITHM
2639/C27 PR1	112855.128 US1	PRO	Expired	60/501971	11-Sep-2003			US	METHOD AND APPARATUS FOR USING EARCONS IN MOBILE COMMUNICATION DEVICES
2639/C27	112855.128 US2	ORD	Published	10/932341	01-Sep-2004			US	METHOD AND APPARATUS FOR USING EARCONS IN MOBILE COMMUNICATION DEVICES
2639/C28 PR1	112855.131 US 1	PRO	Abandoned	60/501951	11-Sep-2003			US	ALTERNATE PRONUNCIATIONS FOR CORRECTION
2639/C29 PR1	112855.132 US 1	PRO	Expired	60/501950	11-Sep-2003			US	METHOD AND APPARATUS FOR BACK-UP OF CUSTOMIZED APPLICATION INFORMATION
2639/C29	112855.132 US2	ORD	Abandoned	10/936882	09-Sep-2004			US	METHOD AND APPARATUS FOR BACK-UP OF CUSTOMIZED APPLICATION INFORMATION

Attorney Docket Number	Predecessor Docket Number	Type	Status	Application Number	Filing Date	Patent Number	Issue date	Country	Title
2639/C49	112855.132 US3	CON	Pending	12/644652	22-Dec-2009			US	METHOD AND APPARATUS FOR BACK-UP OF CUSTOMIZED APPLICATION INFORMATION
2639/C30 PR1	112855.133 US1	PRO	Expired	60/501967	11-Sep-2003			US	AUTOMATIC VOICE ADDRESSING AND MESSAGING METHODS AND APPARATUS
2639/C30	112855.133 US2	ORD	Abandoned	10/938419	10-Sep-2004			US	AUTOMATIC VOICE ADDRESSING AND MESSAGING METHODS AND APPARATUS
2639/C31 PR1	112855.134 US1	PRO	Expired	60/502084	11-Sep-2003			US	PRONUNCIATION DISCOVERY FOR SPOKEN WORDS
2639/C31	112855.134 US2	ORD	Published	10/939942	13-Sep-2004			US	PRONUNCIATION DISCOVERY FOR SPOKEN WORDS
2639/C32 PR1	112855.135 US1	PRO	Expired	60/501990	11-Sep-2003			US	TEXT MESSAGING VIA PHRASE RECOGNITION
2639/C32	112855.135 US2	ORD	Abandoned	10/935691	07-Sep-2004			US	TEXT MESSAGING VIA PHRASE RECOGNITION
2639/C33 PR1	112855.136 US1	PRO	Expired	60/501972	11-Sep-2003			US	PHONE NUMBER AND NAME PRONUNCIATION INTERCHANGE VIA CELL PHONE
2639/C33	112855.136 US2	ORD	Abandoned	10/937890	09-Sep-2004			US	PHONE NUMBER AND NAME PRONUNCIATION INTERCHANGE VIA CELL PHONE
2639/C34 PR1	112855.137 US1	PRO	Expired	60/501973	11-Sep-2003			US	VOICE ENABLED PHONE BOOK INTERFACE FOR SPEAKER DEPENDENT NAME RECOGNITION AND PHONE NUMBER CATEGORIZATION
2639/C34	112855.137 US2	ORD	Published	10/935690	07-Sep-2004			US	VOICE ENABLED PHONE BOOK INTERFACE FOR SPEAKER DEPENDENT NAME RECOGNITION AND PHONE NUMBER CATEGORIZATION
2639/C35 PR1	112855.138 US1	PRO	Expired	60/520187	14-Nov-2003			US	INSTALLING LANGUAGE MODULES IN A MOBILE COMMUNICATION DEVICE
2639/C35	112855.138 US2	ORD	Abandoned	10/988994	15-Nov-2004			US	INSTALLING LANGUAGE MODULES IN A MOBILE COMMUNICATION DEVICE
2639/C36 PR1	112855.139 US1	PRO	Expired	60/545204	17-Feb-2004			US	METHODS AND APPARATUS FOR REPLACEABLE CUSTOMIZATION OF MULTIMODAL EMBEDDED INTERFACES
2639/C36	112855.139 US2	ORD	Abandoned	11/058407	15-Feb-2005			US	METHODS AND APPARATUS FOR REPLACEABLE CUSTOMIZATION OF MULTIMODAL EMBEDDED INTERFACES

Attorney Docket Number	Predecessor Docket Number	Type	Status	Application Number	Filing Date	Patent Number	Issue date	Country	Title
2639/C50	112855.139 US3	CON	Abandoned	12/170863	10-Jul-2008			US	METHODS AND APPARATUS FOR REPLACEABLE CUSTOMIZATION OF MULTIMODAL EMBEDDED INTERFACES
2639/C37 PR1	112855.141 US1	PRO	Expired	60/563754	20-Apr-2004			US	VOICE OVER SHORT MESSAGE SERVICE
2639/C37	112855.141 US2	ORD	Granted	11/110371	20-Apr-2005	7395078	01-Jul-2008	US	VOICE OVER SHORT MESSAGE SERVICE
2639/C51	112855.141 US3	DIV	Published	12/146892	26-Jun-2008			US	VOICE OVER SHORT MESSAGE SERVICE
2639/C38 PR1	112855.142 US1	PRO	Expired	60/622838	28-Oct-2004			US	CODEC-DEPENDENT UNIT SELECTION FOR MOBILE DEVICES
2639/C38	112855.142 US2	ORD	Published	11/262482	28-Oct-2005			US	VOICE OVER SHORT MESSAGE SERVICE
2639/C39	112855.143 US1	PRO	Abandoned	60/622832	28-Oct-2004			US	BIT RATE REDUCTION FOR SPEECH CODING VIA COMPRESSION OF RECORDER BITSTREAMS
2639/C40	112855.144 US1	PRO	Abandoned	60/623068	28-Oct-2004			US	DIALING BY SUFFIX
2639/C41 PR1	112855.145 US1	PRO	Expired	60/649806	03-Feb-2005			US	METHODS AND APPARATUS FOR AUTOMATICALLY EXTENDING THE VOICE RECOGNIZER VOCABULARY OF MOBILE COMMUNICATIONS
2639/C41	112855.145 US2	ORD	Published	11/347666	03-Feb-2006			US	METHODS AND APPARATUS FOR AUTOMATICALLY EXTENDING THE VOICE RECOGNIZER VOCABULARY OF MOBILE COMMUNICATIONS
2639/C42	112855.148 US1	PRO	Expired	60/877146	26-Dec-2006			US	VOICE-MEDIATED MOBILE INFORMATION ACCESS
2639/C43	112855.149 US1	CON	Published	11/673995	12-Feb-2007			US	COLLECTION AND USE OF SIDE INFORMATION IN VOICE-MEDIATED MOBILE SEARCH
2639/C44	112855.150 US1	CON	Published	11/673988	12-Feb-2007			US	INTEGRATED VOICE SEARCH COMMANDS FOR MOBILE COMMUNICATIONS DEVICES
2639/C45	112855.151 US1	CON	Published	11/673997	12-Feb-2007			US	LOCAL STORAGE AND USE OF SEARCH RESULTS FOR VOICE-ENABLED MOBILE COMMUNICATIONS DEVICES
2639/C46	112855.152 US1	CON	PUBLISHED	11/673992	12-Feb-2007			US	ON A MOBILE DEVICE TRACKING USE OF SEARCH RESULTS DELIVERED TO THE MOBILE DEVICE
2639/C47	112855.153 US1	ORD	PUBLISHED	11/673341	09-Feb-2007			US	VOICE SEARCH-ENABLED MOBILE DEVICE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

STATEMENT UNDER 37 CFR 3.73(b)

Applicant/Patent Owner: Daniel L. Roth

Application No./Patent No.: 12/146,892

Filed/Issue Date: 26 June 2008

Titled: Voice Over Short Message Service

Voice Signal Technologies, Inc., a Corporation

(Name of Assignee)

(Type of Assignee, e.g., corporation, partnership, university, government agency, etc.)

states that it is:

1. ☒ the assignee of the entire right, title, and interest in;
2. ☐ an assignee of less than the entire right, title, and interest in
(The extent (by percentage) of its ownership interest is _____ %); or
3. ☐ the assignee of an undivided interest in the entirety of (a complete assignment from one of the joint inventors was made)

the patent application/patent identified above, by virtue of either:

- A. ☒ An assignment from the inventor(s) of the patent application/patent identified above. The assignment was recorded in the United States Patent and Trademark Office at Reel 021276, Frame 0271, or for which a copy therefore is attached.

OR

- B. ☐ A chain of title from the inventor(s), of the patent application/patent identified above, to the current assignee as follows:

1. From: _____ To: _____

The document was recorded in the United States Patent and Trademark Office at
Reel _____, Frame _____, or for which a copy thereof is attached.

2. From: _____ To: _____

The document was recorded in the United States Patent and Trademark Office at
Reel _____, Frame _____, or for which a copy thereof is attached.

3. From: _____ To: _____

The document was recorded in the United States Patent and Trademark Office at
Reel _____, Frame _____, or for which a copy thereof is attached.

☐ Additional documents in the chain of title are listed on a supplemental sheet(s).

- ☒ As required by 37 CFR 3.73(b)(1)(i), the documentary evidence of the chain of title from the original owner to the assignee was, or concurrently is being, submitted for recordation pursuant to 37 CFR 3.11.

[NOTE: A separate copy (i.e., a true copy of the original assignment document(s)) must be submitted to Assignment Division in accordance with 37 CFR Part 3, to record the assignment in the records of the USPTO. See MPEP 302.08]

The undersigned (whose title is supplied below) is authorized to act on behalf of the assignee.

/Jay Sandvos, #43,900/
Signature

October 22, 2010
Date

Jay Sandvos Attorney for Assignee
Printed or Typed Name

(617) 443-9292
Title

This collection of information is required by 37 CFR 3.73(b). The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11 and 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

Electronic Acknowledgement Receipt	
EFS ID:	8678717
Application Number:	12146892
International Application Number:	
Confirmation Number:	5975
Title of Invention:	VOICE OVER SHORT MESSAGE SERVICE
First Named Inventor/Applicant Name:	Daniel L. ROTH
Customer Number:	23483
Filer:	Jay Sandvos
Filer Authorized By:	
Attorney Docket Number:	0112855.00141US3
Receipt Date:	22-OCT-2010
Filing Date:	26-JUN-2008
Time Stamp:	08:48:07
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	no
------------------------	----

File Listing:

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1	Power of Attorney	DD2639C51POARevPriorPower s.pdf	6108983 abb09443dd0f0404852e66703611527481045fc27	no	5

Warnings:

Information:

This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503.

New Applications Under 35 U.S.C. 111

If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application.

National Stage of an International Application under 35 U.S.C. 371

If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.

New International Application Filed with the USPTO as a Receiving Office

If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
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Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NUMBER	FILING OR 371(C) DATE	FIRST NAMED APPLICANT	ATTY. DOCKET NO./TITLE
12/146,892	06/26/2008	Daniel L. ROTH	0112855.00141US3

CONFIRMATION NO. 5975

POWER OF ATTORNEY NOTICE

23483
WILMERHALE/BOSTON
60 STATE STREET
BOSTON, MA 02109



Date Mailed: 11/02/2010

NOTICE REGARDING CHANGE OF POWER OF ATTORNEY

This is in response to the Power of Attorney filed 10/22/2010.

- The Power of Attorney to you in this application has been revoked by the assignee who has intervened as provided by 37 CFR 3.71. Future correspondence will be mailed to the new address of record(37 CFR 1.33).

/mtekle michael/

Office of Data Management, Application Assistance Unit (571) 272-4000, or (571) 272-4200, or 1-888-786-0101



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
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Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NUMBER	FILING OR 371(C) DATE	FIRST NAMED APPLICANT	ATTY. DOCKET NO./TITLE
12/146,892	06/26/2008	Daniel L. ROTH	2639/C51

CONFIRMATION NO. 5975

POA ACCEPTANCE LETTER

2101
Sunstein Kann Murphy & Timbers LLP
125 SUMMER STREET
BOSTON, MA 02110-1618



Date Mailed: 11/02/2010

NOTICE OF ACCEPTANCE OF POWER OF ATTORNEY

This is in response to the Power of Attorney filed 10/22/2010.

The Power of Attorney in this application is accepted. Correspondence in this application will be mailed to the above address as provided by 37 CFR 1.33.

/mtekle michael/

Office of Data Management, Application Assistance Unit (571) 272-4000, or (571) 272-4200, or 1-888-786-0101



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
12/146,892	06/26/2008	Daniel L. ROTH	2639/C51	5975
2101 7590 04/01/2011 Sunstein Kann Murphy & Timbers LLP 125 SUMMER STREET BOSTON, MA 02110-1618			EXAMINER LE, DANH C	
			ART UNIT 2617	PAPER NUMBER
			NOTIFICATION DATE 04/01/2011	DELIVERY MODE ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

PATENTS@SUNSTEINLAW.COM

Office Action Summary	Application No.	Applicant(s)	
	12/146,892	ROTH, DANIEL L.	
	Examiner	Art Unit	
	DANH C. LE	2617	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).

Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on 26 June 2008.

2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) 1-18 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) ☐ Claim(s) _____ is/are allowed.

6) ☐ Claim(s) 1-8 and 10-17 is/are rejected.

7) ☒ Claim(s) 9 and 18 is/are objected to.

8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a) ☐ All b) ☐ Some * c) ☐ None of:

1. ☐ Certified copies of the priority documents have been received.

2. ☐ Certified copies of the priority documents have been received in Application No. _____.

3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.

5) ☐ Notice of Informal Patent Application

6) ☐ Other: _____.

DETAILED ACTION

Information Disclosure Statement

1. The information disclosure statement (IDS) submitted on 11/19/08 and 3/25/10 have been considered by the examiner and made of record in the application file.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. **Claims 1-8, 10-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kim (US 2003/0120492) in view of Baker (US 2003/0210280).**

As to claim 1, Kim teaches a method of operating a communication device (figure 1, elements 10, 12 and paragraphs 39- 40), said method comprising:
over a communication messaging channel receiving a text message, wherein the text message contains a non-text representation of an utterance;
extracting the non-text representation from the text message;

Kim fails to teach a communication device is a mobile phone that synthesizing an audio representation of the spoken utterance from the non-text representation and playing the synthesized audio representation through an audio output device on the mobile communication device. Baker teaches a communication device is a mobile phone (paragraph 01) that synthesizing an audio representation of the spoken

utterance from the non-text representation and playing the synthesized audio representation through an audio output device on the mobile communication device (paragraphs 191, 204). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the teaching of Baker into the system of Kim in order to utilizes sequenced symbol to output of associated messages.

As to claim 2, Kim and Baker teaches the method of claim 1, wherein the mobile communication device is a cellular phone (paragraph 01).

As to claim 3, Kim and Baker teaches the method of claim 1, wherein the non-text representation of the utterance is a string of symbols representing sounds of the utterance (Kim 's paragraph 43 and Baker 's paragraphs 14, 15).

As to claim 4, Kim and Baker teaches the method of claim 3, wherein the symbols in the string of symbols are selected from the group consisting of phonemes, diphones, triphones, syllables, and demisyllables (Kim 's paragraph 43 and Baker 's paragraphs 14, 15).

As to claim 5, Kim and Baker teaches the method of claim 3, wherein the symbols in the string of symbols are phonemes (Kim 's paragraph 43 and Baker 's paragraphs 14, 15).

As to claim 6, Kim and Baker teaches the method of claim 1, Kim and Baker fails to teach the wireless messaging channel is an SMS channel and the text message is an SMS message. However, the Examiner takes Official Notices that this limitation is known in the arts. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the teaching of this limitation into the

system of Kim and Baker in order to enhance the system performance of the communication with reality in virtual environment.

As to claim 7, Kim and Baker teaches the method of claim 1, wherein the received text message includes an indicator identifying the text message as containing a non-text representation of the utterance (Kim 's paragraph 39-40).

As to claim 8, Kim and Baker teaches the method of claim 1, wherein the non-text representation is a compressed version of the utterance (Kim 's paragraph 06).

As to claim 10, the claim is an apparatus claim of claim 1; therefore, the claim is interpreted and rejected as set for as claim 1.

As to claim 11, the claim is an apparatus claim of claim 2; therefore, the claim is interpreted and rejected as set for as claim 2.

As to claim 12, the claim is an apparatus claim of claim 3; therefore, the claim is interpreted and rejected as set for as claim 3.

As to claim 13, the claim is an apparatus claim of claim 4; therefore, the claim is interpreted and rejected as set for as claim 4.

As to claim 14, the claim is an apparatus claim of claim 5; therefore, the claim is interpreted and rejected as set for as claim 5.

As to claim 15, the claim is an apparatus claim of claim 6; therefore, the claim is interpreted and rejected as set for as claim 6.

As to claim 16, the claim is an apparatus claim of claim 7; therefore, the claim is interpreted and rejected as set for as claim 7.

As to claim 17, the claim is an apparatus claim of claim 8; therefore, the claim is interpreted and rejected as set for as claim 8.

Allowable Subject Matter

3. Claims are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

As to claims 9 and 18, the prior arts either alone or in combine fails to teach further comprising over the wireless messaging channel receiving a plurality of text messages in addition to the first-mentioned text message, said first-mentioned text message and said plurality of text messages forming a set of text messages, wherein each text message of the set of text messages contains a non-text representation of a different portion of the utterance; extracting the non-text representations from the plurality of text messages; and synthesizing the audio representation of the spoken utterance from the non-text representations extracted from the set of text messages.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to DANH C. LE whose telephone number is 571-272-7868. The examiner can normally be reached on 8:00AM-5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, KENT W. CHANG can be reached on 571-272-7667. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

March 25, 2011

/DANH C LE/
Primary Examiner, Art Unit 2617

Notice of References Cited	Application/Control No. 12/146,892	Applicant(s)/Patent Under Reexamination ROTH, DANIEL L.	
	Examiner DANH C. LE	Art Unit 2617	Page 1 of 1

U.S. PATENT DOCUMENTS

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Name	Classification
*	A	US-2003/0120492	06-2003	Kim et al.	704/270
*	B	US-2002/0163544	11-2002	Baker et al.	345/835
	C	US-			
	D	US-			
	E	US-			
	F	US-			
	G	US-			
	H	US-			
	I	US-			
	J	US-			
	K	US-			
	L	US-			
	M	US-			

FOREIGN PATENT DOCUMENTS

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Country	Name	Classification
	N					
	O					
	P					
	Q					
	R					
	S					
	T					

NON-PATENT DOCUMENTS

*		Include as applicable: Author, Title Date, Publisher, Edition or Volume, Pertinent Pages)
	U	
	V	
	W	
	X	

*A copy of this reference is not being furnished with this Office action. (See MPEP § 707.05(a).)
Dates in MM-YYYY format are publication dates. Classifications may be US or foreign.

<i>Index of Claims</i> 	Application/Control No. 12146892	Applicant(s)/Patent Under Reexamination ROTH, DANIEL L.
	Examiner DANH C LE	Art Unit 2617

✓	Rejected	-	Cancelled	N	Non-Elected	A	Appeal
=	Allowed	÷	Restricted	I	Interference	O	Objected

☐ Claims renumbered in the same order as presented by applicant
 ☐ CPA
 ☐ T.D.
 ☐ R.1.47

CLAIM		DATE									
Final	Original	03/24/2011									
	1	✓									
	2	✓									
	3	✓									
	4	✓									
	5	✓									
	6	✓									
	7	✓									
	8	✓									
	9	O									
	10	✓									
	11	✓									
	12	✓									
	13	✓									
	14	✓									
	15	✓									
	16	✓									
	17	✓									
	18	O									

<i>Search Notes</i> 	Application/Control No. 12146892	Applicant(s)/Patent Under Reexamination ROTH, DANIEL L.
	Examiner DANH C LE	Art Unit 2617

SEARCHED			
Class	Subclass	Date	Examiner
455	466, 418, 550.1	3/24/11	DCL
704	270	/	/

SEARCH NOTES		
Search Notes	Date	Examiner
Double Patent Checked	3/24/11	DCL
EAST Searched (US, US PUB, EPO, DERWENT, JPO)	/	/

INTERFERENCE SEARCH			
Class	Subclass	Date	Examiner

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 Alexandria, Virginia 22313-1450
 www.uspto.gov

BIB DATA SHEET

CONFIRMATION NO. 5975

SERIAL NUMBER 12/146,892	FILING or 371(c) DATE 06/26/2008 RULE	CLASS 455	GROUP ART UNIT 2617	ATTORNEY DOCKET NO. 2639/C51		
APPLICANTS Daniel L. ROTH, Boston, MA; ** CONTINUING DATA ***** This application is a DIV of 11/110,371 04/20/2005 PAT 7,395,078 which claims benefit of 60/563,754 04/20/2004 ** FOREIGN APPLICATIONS ***** ** IF REQUIRED, FOREIGN FILING LICENSE GRANTED ** 07/11/2008						
Foreign Priority claimed ☐ Yes ☒ No 35 USC 119(a-d) conditions met ☐ Yes ☒ No Verified and /DANH C LE/ Acknowledged Examiner's Signature		☐ Met after Allowance Initials	STATE OR COUNTRY MA	SHEETS DRAWINGS 3	TOTAL CLAIMS 18	INDEPENDENT CLAIMS 2
ADDRESS Sunstein Kann Murphy & Timbers LLP 125 SUMMER STREET BOSTON, MA 02110-1618 UNITED STATES						
TITLE VOICE OVER SHORT MESSAGE SERVICE						
FILING FEE RECEIVED 1160	FEES: Authority has been given in Paper No. _____ to charge/credit DEPOSIT ACCOUNT No. _____ for following:			☐ All Fees ☐ 1.16 Fees (Filing) ☐ 1.17 Fees (Processing Ext. of time) ☐ 1.18 Fees (Issue) ☐ Other _____ ☐ Credit		

Receipt date: 03/25/2010

12146892 - GAU: 2617

PTO/SB/08b (07-09)

Approved for use through 07/31/2012. OMB 0651-0031

U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449/PTO INFORMATION DISCLOSURE STATEMENT BY APPLICANT <i>(Use as many sheets as necessary)</i>				Complete if Known	
				Application Number	12/146,892-Conf. #5975
				Filing Date	June 26, 2008
				First Named Inventor	Daniel L. ROTH
				Art Unit	N/A
				Examiner Name	Not Yet Assigned
Sheet	1	of	1	Attorney Docket Number	0112855.00141US3

U.S. PATENT DOCUMENTS					
Examiner Initials*	Cite No. ¹	Document Number Number-Kind Code ² (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
	AA*	US-2004/0213204	10-28-2004	Yang	

FOREIGN PATENT DOCUMENTS						
Examiner Initials*	Cite No. ¹	Foreign Patent Document Country Code ³ -Number ⁴ -Kind Code ⁵ (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages Or Relevant Figures Appear	T ⁶

NON PATENT LITERATURE DOCUMENTS			
Examiner Initials*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²

Examiner Signature	/Danh Le/	Date Considered	03/24/2011
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*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. ¹ Applicant's unique citation designation number (optional). ² See Kinds Codes of USPTO Patent Documents at www.uspto.gov or MPEP 901.04. ³ Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. ⁶ Applicant is to place a check mark here if English language translation is attached.

US1DOCS 7484947v1

ALL REFERENCES CONSIDERED EXCEPT WHERE LINED THROUGH. /D.L./

EAST Search History**EAST Search History (Prior Art)**

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
S441	93	@ad<"20040501" and (phonem\$4 diphon\$4 triphon\$4 syllables demisyllables symbol\$4 non-text nontext non adj1 text) with (speech voice utteran\$4) with (synthesi\$4 combin\$4 compound\$4) and (phonem\$4 diphon\$4 triphon\$4 syllables demisyllables symbol\$4 non-text nontext non adj1 text) with output\$4 with (device portable mobile)	US- PGPUB; USPAT	OR	ON	2011/03/24 17:26

EAST Search History (Interference)

< This search history is empty >

3/ 25/ 11 2:53:15 PM**H:\ Workspaces\ 12146892.wsp**

Receipt date: 11/19/2008

12146892 - GAU: 2617

PTO/SB/08b (09-08)

Approved for use through 10/31/2008. OMB 0651-0031

U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449A/PTO INFORMATION DISCLOSURE STATEMENT BY APPLICANT <i>(Use as many sheets as necessary)</i>				Complete if Known	
				Application Number	12/146,892-Conf. #5975
				Filing Date	June 26, 2008
				First Named Inventor	Daniel L. ROTH
				Art Unit	2617
				Examiner Name	Not Yet Assigned
Sheet	1	of	1	Attorney Docket Number	0112855.00141US3

U.S. PATENT DOCUMENTS					
Examiner Initials*	Cite No. ¹	Document Number	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number-Kind Code ² (if known)			
	AA*	US-2002/0142787-A1	10-03-2002	Holley et al.	
	AB*	US-2003/0014253-A1	01-16-2003	WALSH	
	AC*	US-2003/0088418-A1	05-08-2003	Kagoshima et al.	
	AD*	US-2003/0139922-A1	07-24-2003	Hoffmann et al.	
	AE*	US-6,163,765	12-19-2000	Andric et al.	
	AF*	US-6,760,703	07-06-2004	Kagoshima et al.	
	AG*	US-2002/0077811	06-20-2002	Koenig et al.	
	AH*	US-2002/0102966-A1	08-01-2002	Lev et al.	
	AI*	US-2002/0103646	08-01-2002	Kochanski et al.	

FOREIGN PATENT DOCUMENTS						
Examiner Initials*	Cite No. ¹	Foreign Patent Document	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages Or Relevant Figures Appear	T ⁶
		Country Code ³ -Number ⁴ -Kind Code ⁵ (if known)				

NON PATENT LITERATURE DOCUMENTS			
Examiner Initials*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²
	CA*	International Searching Authority, International Search Report for PCT/US05/13478, mailed 28 Mar 2007, 4 pages	
	CB*	MASURKO, T. et al., "A Very Low Bit Rate Speech Coder Using HMM with Speaker Adaption", Ministry of Education, Science and Culture of Japan, Grant-in-Aid for Encouragement of Young Scientists, 09750399, 1997, 4 pages	
	CC*	PAGARKAR, M. H. et al., "Language Independent Speech Compression using Devanagari Phonetics", V.E.S. Institute of Technology, 7 pages	

Examiner Signature	/Danh Le/	Date Considered	03/24/2011
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*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. * CITE NO.: Those application(s) which are marked with an single asterisk (*) next to the Cite No. are not supplied (under 37 CFR 1.98(a)(2)(iii)) because that application was filed after June 30, 2003 or is available in the IFW. ¹ Applicant's unique citation designation number (optional). ² See Kinds Codes of USPTO Patent Documents at www.uspto.gov or MPEP 901.04. ³ Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. ⁶ Applicant is to place a check mark here if English language Translation is attached.

US1DOCS 6866995v1

ALL REFERENCES CONSIDERED EXCEPT WHERE LINED THROUGH. /D.L./

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of: Daniel L.Roth

Application No.: 12/146,892

Group No.: 2617

Filed: June 26, 2008

Examiner: Le, Danh C.

For: Voice Over Short Message Service

Mail Stop Amendment**Commissioner for Patents****P.O. Box 1450****Alexandria, VA 22313-1450****AMENDMENT TRANSMITTAL**

- Transmitted herewith is an amendment for this application.

STATUS

- Applicant is other than a small entity.

EXTENSION OF TERM

- The proceedings herein are for a patent application and the provisions of 37 C.F.R. 1.136 apply. Applicant believes that no extension of term is required. However, this conditional petition is being made to provide for the possibility that applicant has inadvertently overlooked the need for a petition for extension of time.

FEE FOR CLAIMS

- The fee for claims (37 C.F.R. 1.16(b)-(d)) has been calculated as shown below:

	(Col. 1)	(Col. 2)	(Col. 3)	OTHER THAN A SMALL ENTITY			
	CLAIMS						
	REMAINING AFTER AMENDMENT	HIGHEST NO. PREVIOUSLY PAID FOR	PRESENT EXTRA		RATE	ADDIT. FEE	
TOTAL	18	—	20	=	0	x	\$ 52.00 = \$ 0.00
INDEP.	2	—	3	=	0	x	\$ 220.00 = \$ 0.00
FIRST PRESENTATION OF MULTIPLE DEP. CLAIM				+	\$ 0.00	=	\$ 0.00
				TOTAL			
				ADDIT. FEE			
				\$ 0.00			

No additional fee for claims is required.

Please charge any fees required by this paper to deposit account number 19-4972.

Date: June 28, 2011

/Jay Sandvos, #43,900/

Jay Sandvos
Registration No. 43,900
SUNSTEIN KANN MURPHY & TIMBERS LLP
125 Summer Street
Boston, MA 02110-1618
US
617-443-9292
Customer No. 02101

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicants:	Roth	Atty Docket:	2639/C51
Serial No:	12/146,892	Art Unit:	2617
Date Filed:	June 26, 2008	Examiner:	Le
Invention:	Voice Over Short Message Service		

FILED BY USPTO ELECTRONIC FILING SYSTEM

RESPONSE A

Dear Sir:

In response to the Office Action dated April 1, 2011, Applicants request entry of the following amendment and remarks.

A Listing of the Claims begins on page 2 of this paper.

Remarks begin on page 5 of this paper.

The Claims

This listing of claims is unchanged from those initially filed in the application.

1. (Original) A method of operating a mobile communication device, said method comprising:
over a wireless messaging channel receiving a text message, wherein the text message
contains a non-text representation of an utterance;
extracting the non-text representation from the text message;
synthesizing an audio representation of the spoken utterance from the non-text
representation; and
playing the synthesized audio representation through an audio output device on the mobile
communication device.
2. (Original) The method of claim 1, wherein the mobile communication device is a cellular
phone.
3. (Original) The method of claim 1, wherein the non-text representation of the utterance is a
string of symbols representing sounds of the utterance.
4. (Original) The method of claim 3, wherein the symbols in the string of symbols are selected
from the group consisting of phonemes, diphones, triphones, syllables, and demisyllables.
5. (Original) The method of claim 3, wherein the symbols in the string of symbols are
phonemes.
6. (Original) The method of claim 1, wherein the wireless messaging channel is an SMS
channel and the text message is an SMS message.
7. (Original) The method of claim 1, wherein the received text message includes an indicator
identifying the text message as containing a non-text representation of the utterance.

- 8. (Original)** The method of claim 1, wherein the non-text representation is a compressed version of the utterance.
- 9. (Original)** The method of claim 1 further comprising:
- over the wireless messaging channel receiving a plurality of text messages in addition to the first-mentioned text message, said first-mentioned text message and said plurality of text messages forming a set of text messages, wherein each text message of the set of text messages contains a non-text representation of a different portion of the utterance;
 - extracting the non-text representations from the plurality of text messages; and
 - synthesizing the audio representation of the spoken utterance from the non-text representations extracted from the set of text messages.
- 10. (Original)** A mobile communication device for receiving a voice message, said mobile communication device comprising:
- a processor system;
 - a transceiver for receiving a text message that contains a non-text representation of an utterance;
 - an audio output device; and
 - memory storing code which when executed on the processor system causes the mobile communication device to:
 - extract the non-text representation from the received text message; synthesize an audio representation of the spoken utterance from the non-text representation;
 - and
 - play the synthesized audio representation through the audio output device.
- 11. (Original)** The mobile communication device of claim 10, wherein (Original) The mobile communication device includes a cellular phone.

12. (Original) The mobile communication device of claim 10, wherein the non-text representation of the utterance is a string of symbols representing sounds of the utterance.

13. (Original) The mobile communication device of claim 12, wherein the symbols in the string of symbols are selected from the group consisting of phonemes, diphones, triphones, syllables, and demisyllables.

14. (Original) The mobile communication device of claim 12, wherein the symbols in the string of symbols are phonemes.

15. (Original) The mobile communication device of claim 10, wherein the wireless messaging channel is an SMS channel and the text message is an SMS message.

16. (Original) The mobile communication device of claim 10, wherein the received text message includes an indicator identifying the text message as containing a non-text representation of the utterance.

17. (Original) The mobile communication device of claim 10, wherein the non-text representation is a compressed version of the utterance.

18. (Original) The mobile communication device of claim 10, wherein the code when executed on the processor further causes the mobile communication device to:

over the wireless messaging channel, receive a plurality of text messages in addition to the first-mentioned text message, said first-mentioned text message and said plurality of text messages forming a set of text messages, wherein each text message of the set of text messages contains a non-text representation of a different portion of the utterance;

extract the non-text representations from the plurality of text messages; and

synthesize the audio representation of the spoken utterance from the non-text representations extracted from the set of text messages.

REMARKS

Claims 1-18 remain pending and have not been amended.

Independent Claim 1 is directed to a method of operating a mobile communication device which in part requires receiving a text message that contains a non-text representation of an utterance. This non-text representation is then extracted from the text message and from it, an audio representation of the spoken utterance is synthesized and played through an audio output device on the mobile communication device. This is not taught or suggested by the cited references.

Kim does not describe extracting a non-text representation of a spoken utterance from a received text message. Rather, Kim describes synthesizing speech from the text itself. *E.g., para. [0040]*. The paragraphs cited by the Examiner—[0039]-[0040]—refer to the operation of a communication apparatus 40 which as an initial matter has a receiving section 52 that receives a text message from a sender. The other blocks within the apparatus 40—e.g., phoneme dividing section 44—are all processing performed on a text message after it has been received.

Baker also does not describe extracting a non-text representation of a spoken utterance from a received text message. The Office action cited to paragraphs [0191] and [0204] as teaching this, but Applicant respectfully disagrees. Cited paragraph [0191] describes some kind symbol preview functionality, and paragraph [0204] discusses the same thing, mentioning merely that user feedback may be in the audible form. Thus, the cited passages in Baker fail to teach or suggest an arrangement as required by Claim 1 which includes extracting a non-text representation of a spoken utterance from a received text message and synthesizing that as representative speech audio.

In fact, notwithstanding the tedious length of the Baker reference, he never suggests that a user message of any sort might be rendered by speech synthesis. Rather the sole brief mentions of speech synthesis in Baker are that icons can be used in a speech synthesizer (*Para. [0014]*) or that user feedback can be provided by speech synthesis (*para. [0244]*). But neither fleeting mention amounts to what Claim 1 requires which is extracting a non-text representation of a spoken utterance from a received text message and synthesizing that as representative speech audio.

Thus neither Kim nor Baker, separately or together teaches or suggests an arrangement as required by Claim 1, which is therefore allowable over them. Claims 2-9 depend from Claim 1 and are allowable for the same reasons. Independent Claim 10 is a device claim similar in substance to method Claim 1 and is therefore allowable for the same reasons. Claims 11-18 depend from Claim 10 and are also allowable for the same reasons.

And though the foregoing makes it unnecessary, Applicant also respectfully disagrees with many of the specific rejections of the various dependent claims.

For example, with respect to claims 3 and 12, the Examiner asserts that the non-text representation of the utterance may be a string of symbols representing sounds of the utterance is taught by Kim at paragraph [0043] and Baker at paragraphs [0014]-[0015]. Applicant disagrees. The cited passages in Baker quite simply do not state anything at all about a non-text representation of an input utterance being a string of symbols representing sounds of the utterance. And Kim describes that the received message is a text message not a non-text representation of an input utterance, Kim's converts the message into representative phonemes only after it has been received and is being processed. Thus neither Kim nor Baker teaches or

suggests anything like what Claims 3 and 12 require. And for the same additional reason, neither Kim nor Baker teaches or suggests the specific requirements of Claims 4, 5, 13 and 14.

With regards to Claims 7 and 16 that require the received text message to include an indicator identifying the text message as containing a non-text representation of the utterance, the Office action refers to paragraphs [0039]-[0040] of Kim without specifying what is alleged to correspond to the claim language. Applicant disagrees and can find no teaching or suggestion of those claims in the cited passage.

With regards to Claims 8 and 17 that require the non-text representation be a compressed version of the utterance, the Office action refers to paragraph [0006] of Kim. Applicant again disagrees. That paragraph mentions another application that describes an audio chatting application using audio compression. But that is in no way equivalent to an arrangement as required by Claims 8 and 17 that requires receiving a text message that contains a non-text representation of an utterance, extracting the non-text representation from the text message, and then from that synthesizing an audio representation of the spoken utterance and played that through an audio output device on the mobile communication device.

Thus, for all of the above reasons, each of Claims 3-5, 7, 8, 12-14, 16 and 17 is separately and independently allowable over the teachings of Kim and Baker.

Applicant believes that no extension of time is required; however, this conditional petition is made to provide for the possibility that the applicant has inadvertently overlooked the need for an extension of time. If any fees are required for the timely consideration of this application, please charge deposit account number 19-4972. It is submitted that all the claim rejections have been addressed and that all of the pending claims are now in a condition for

Attorney Docket: 2639/C51
Application 12/146,892
Reply to Office Action dated April 1, 2011

allowance. Reconsideration of the application and issuance of a notice of allowance are respectfully requested.

Respectfully submitted,

/Jay Sandvos, #43,900/

Jay Sandvos
Registration No. 43,900
Attorney for Applicant

SUNSTEIN KANN MURPHY & TIMBERS LLP
125 Summer Street
Boston, MA 02110-1618
Tel: (617) 443-9292
Fax: (617) 443-0004
02639/00C51 1474923.1

Electronic Acknowledgement Receipt	
EFS ID:	10402256
Application Number:	12146892
International Application Number:	
Confirmation Number:	5975
Title of Invention:	VOICE OVER SHORT MESSAGE SERVICE
First Named Inventor/Applicant Name:	Daniel L. ROTH
Customer Number:	02101
Filer:	Jay Sandvos
Filer Authorized By:	
Attorney Docket Number:	2639/C51
Receipt Date:	28-JUN-2011
Filing Date:	26-JUN-2008
Time Stamp:	17:00:04
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	no
------------------------	----

File Listing:

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1	Amendment/Req. Reconsideration-After Non-Final Reject	DD2639C51Response.pdf	178212 1a275f0e82d5c5e5550df6b44db5cef3a746f597	no	10

Warnings:

Information:

This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503.

New Applications Under 35 U.S.C. 111

If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application.

National Stage of an International Application under 35 U.S.C. 371

If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.

New International Application Filed with the USPTO as a Receiving Office

If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

PATENT APPLICATION FEE DETERMINATION RECORD Substitute for Form PTO-875					Application or Docket Number 12/146,892		Filing Date 06/26/2008		☐ To be Mailed		
APPLICATION AS FILED – PART I											
(Column 1)			(Column 2)			SMALL ENTITY ☐ OR		OTHER THAN SMALL ENTITY			
FOR	NUMBER FILED	NUMBER EXTRA	RATE (\$)	FEE (\$)		RATE (\$)	FEE (\$)				
☐ BASIC FEE (37 CFR 1.16(a), (b), or (c))	N/A	N/A	N/A			N/A					
☐ SEARCH FEE (37 CFR 1.16(k), (i), or (m))	N/A	N/A	N/A			N/A					
☐ EXAMINATION FEE (37 CFR 1.16(o), (p), or (q))	N/A	N/A	N/A			N/A					
TOTAL CLAIMS (37 CFR 1.16(i))	minus 20 =	*	X \$ =			X \$ =					
INDEPENDENT CLAIMS (37 CFR 1.16(h))	minus 3 =	*	X \$ =			X \$ =					
☐ APPLICATION SIZE FEE (37 CFR 1.16(s))	If the specification and drawings exceed 100 sheets of paper, the application size fee due is \$250 (\$125 for small entity) for each additional 50 sheets or fraction thereof. See 35 U.S.C. 41(a)(1)(G) and 37 CFR 1.16(s).										
☐ MULTIPLE DEPENDENT CLAIM PRESENT (37 CFR 1.16(j))											
* If the difference in column 1 is less than zero, enter "0" in column 2.			TOTAL			TOTAL					
APPLICATION AS AMENDED – PART II											
(Column 1)			(Column 2)			(Column 3)		SMALL ENTITY OR		OTHER THAN SMALL ENTITY	
AMENDMENT	06/28/2011	CLAIMS REMAINING AFTER AMENDMENT		HIGHEST NUMBER PREVIOUSLY PAID FOR	PRESENT EXTRA	RATE (\$)	ADDITIONAL FEE (\$)		RATE (\$)	ADDITIONAL FEE (\$)	
	Total (37 CFR 1.16(i))	* 18	Minus	** 20	= 0	X \$ =			OR X \$52=	0	
	Independent (37 CFR 1.16(h))	* 2	Minus	*** 3	= 0	X \$ =			OR X \$220=	0	
	☐ Application Size Fee (37 CFR 1.16(s))										
	☐ FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))										
						TOTAL ADD'L FEE			OR TOTAL ADD'L FEE	0	
AMENDMENT		CLAIMS REMAINING AFTER AMENDMENT		HIGHEST NUMBER PREVIOUSLY PAID FOR	PRESENT EXTRA	RATE (\$)	ADDITIONAL FEE (\$)		RATE (\$)	ADDITIONAL FEE (\$)	
	Total (37 CFR 1.16(i))	*	Minus	**	=	X \$ =			OR X \$ =		
	Independent (37 CFR 1.16(h))	*	Minus	***	=	X \$ =			OR X \$ =		
	☐ Application Size Fee (37 CFR 1.16(s))										
	☐ FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))										
						TOTAL ADD'L FEE			OR TOTAL ADD'L FEE		
* If the entry in column 1 is less than the entry in column 2, write "0" in column 3. ** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 20, enter "20". *** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 3, enter "3". The "Highest Number Previously Paid For" (Total or Independent) is the highest number found in the appropriate box in column 1.											

Legal Instrument Examiner:
/MOLIKI MAY/

This collection of information is required by 37 CFR 1.16. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

NOTICE OF ALLOWANCE AND FEE(S) DUE

2101 7590 09/12/2011
Sunstein Kann Murphy & Timbers LLP
125 SUMMER STREET
BOSTON, MA 02110-1618

EXAMINER

LE, DANH C

ART UNIT

PAPER NUMBER

2617

DATE MAILED: 09/12/2011

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
12/146,892	06/26/2008	Daniel L. ROTH	2639/C51	5975

TITLE OF INVENTION: VOICE OVER SHORT MESSAGE SERVICE

APPLN. TYPE	SMALL ENTITY	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	NO	\$1510	\$300	\$0	\$1810	12/12/2011

THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATENT. PROSECUTION ON THE MERITS IS CLOSED. THIS NOTICE OF ALLOWANCE IS NOT A GRANT OF PATENT RIGHTS. THIS APPLICATION IS SUBJECT TO WITHDRAWAL FROM ISSUE AT THE INITIATIVE OF THE OFFICE OR UPON PETITION BY THE APPLICANT. SEE 37 CFR 1.313 AND MPEP 1308.

THE ISSUE FEE AND PUBLICATION FEE (IF REQUIRED) MUST BE PAID WITHIN THREE MONTHS FROM THE MAILING DATE OF THIS NOTICE OR THIS APPLICATION SHALL BE REGARDED AS ABANDONED. THIS STATUTORY PERIOD CANNOT BE EXTENDED. SEE 35 U.S.C. 151. THE ISSUE FEE DUE INDICATED ABOVE DOES NOT REFLECT A CREDIT FOR ANY PREVIOUSLY PAID ISSUE FEE IN THIS APPLICATION. IF AN ISSUE FEE HAS PREVIOUSLY BEEN PAID IN THIS APPLICATION (AS SHOWN ABOVE), THE RETURN OF PART B OF THIS FORM WILL BE CONSIDERED A REQUEST TO REAPPLY THE PREVIOUSLY PAID ISSUE FEE TOWARD THE ISSUE FEE NOW DUE.

HOW TO REPLY TO THIS NOTICE:

I. Review the SMALL ENTITY status shown above.

If the SMALL ENTITY is shown as YES, verify your current SMALL ENTITY status:

A. If the status is the same, pay the TOTAL FEE(S) DUE shown above.

B. If the status above is to be removed, check box 5b on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and twice the amount of the ISSUE FEE shown above, or

If the SMALL ENTITY is shown as NO:

A. Pay TOTAL FEE(S) DUE shown above, or

B. If applicant claimed SMALL ENTITY status before, or is now claiming SMALL ENTITY status, check box 5a on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and 1/2 the ISSUE FEE shown above.

II. PART B - FEE(S) TRANSMITTAL, or its equivalent, must be completed and returned to the United States Patent and Trademark Office (USPTO) with your ISSUE FEE and PUBLICATION FEE (if required). If you are charging the fee(s) to your deposit account, section "4b" of Part B - Fee(s) Transmittal should be completed and an extra copy of the form should be submitted. If an equivalent of Part B is filed, a request to reapply a previously paid issue fee must be clearly made, and delays in processing may occur due to the difficulty in recognizing the paper as an equivalent of Part B.

III. All communications regarding this application must give the application number. Please direct all communications prior to issuance to Mail Stop ISSUE FEE unless advised to the contrary.

IMPORTANT REMINDER: Utility patents issuing on applications filed on or after Dec. 12, 1980 may require payment of maintenance fees. It is patentee's responsibility to ensure timely payment of maintenance fees when due.

PART B - FEE(S) TRANSMITTAL

**Complete and send this form, together with applicable fee(s), to: Mail Mail Stop ISSUE FEE
Commissioner for Patents
P.O. Box 1450
Alexandria, Virginia 22313-1450
or Fax (571)-273-2885**

INSTRUCTIONS: This form should be used for transmitting the ISSUE FEE and PUBLICATION FEE (if required). Blocks 1 through 5 should be completed where appropriate. All further correspondence including the Patent, advance orders and notification of maintenance fees will be mailed to the current correspondence address as indicated unless corrected below or directed otherwise in Block 1, by (a) specifying a new correspondence address; and/or (b) indicating a separate "FEE ADDRESS" for maintenance fee notifications.

CURRENT CORRESPONDENCE ADDRESS (Note: Use Block 1 for any change of address)

2101 7590 09/12/2011
Sunstein Kann Murphy & Timbers LLP
125 SUMMER STREET
BOSTON, MA 02110-1618

Note: A certificate of mailing can only be used for domestic mailings of the Fee(s) Transmittal. This certificate cannot be used for any other accompanying papers. Each additional paper, such as an assignment or formal drawing, must have its own certificate of mailing or transmission.

Certificate of Mailing or Transmission

I hereby certify that this Fee(s) Transmittal is being deposited with the United States Postal Service with sufficient postage for first class mail in an envelope addressed to the Mail Stop ISSUE FEE address above, or being facsimile transmitted to the USPTO (571) 273-2885, on the date indicated below.

(Depositor's name)
(Signature)
(Date)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
12/146,892	06/26/2008	Daniel L. ROTH	2639/C51	5975

TITLE OF INVENTION: VOICE OVER SHORT MESSAGE SERVICE

APPLN. TYPE	SMALL ENTITY	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	NO	\$1510	\$300	\$0	\$1810	12/12/2011

EXAMINER	ART UNIT	CLASS-SUBCLASS
LE, DANH C	2617	455-466000

1. Change of correspondence address or indication of "Fee Address" (37 CFR 1.363).

- ☐ Change of correspondence address (or Change of Correspondence Address form PTO/SB/122) attached.
☐ "Fee Address" indication (or "Fee Address" Indication form PTO/SB/47; Rev 03-02 or more recent) attached. **Use of a Customer Number is required.**

2. For printing on the patent front page, list

- (1) the names of up to 3 registered patent attorneys or agents OR, alternatively, 1 _____
(2) the name of a single firm (having as a member a registered attorney or agent) and the names of up to 2 registered patent attorneys or agents. If no name is listed, no name will be printed. 2 _____
3 _____

3. ASSIGNEE NAME AND RESIDENCE DATA TO BE PRINTED ON THE PATENT (print or type)

PLEASE NOTE: Unless an assignee is identified below, no assignee data will appear on the patent. If an assignee is identified below, the document has been filed for recordation as set forth in 37 CFR 3.11. Completion of this form is NOT a substitute for filing an assignment.

(A) NAME OF ASSIGNEE

(B) RESIDENCE: (CITY and STATE OR COUNTRY)

Please check the appropriate assignee category or categories (will not be printed on the patent): ☐ Individual ☐ Corporation or other private group entity ☐ Government

4a. The following fee(s) are submitted:

- ☐ Issue Fee
☐ Publication Fee (No small entity discount permitted)
☐ Advance Order - # of Copies _____

4b. Payment of Fee(s): (Please first reapply any previously paid issue fee shown above)

- ☐ A check is enclosed.
☐ Payment by credit card. Form PTO-2038 is attached.
☐ The Director is hereby authorized to charge the required fee(s), any deficiency, or credit any overpayment, to Deposit Account Number _____ (enclose an extra copy of this form).

5. Change in Entity Status (from status indicated above)

- ☐ a. Applicant claims SMALL ENTITY status. See 37 CFR 1.27. ☐ b. Applicant is no longer claiming SMALL ENTITY status. See 37 CFR 1.27(g)(2).

NOTE: The Issue Fee and Publication Fee (if required) will not be accepted from anyone other than the applicant; a registered attorney or agent; or the assignee or other party in interest as shown by the records of the United States Patent and Trademark Office.

Authorized Signature _____

Date _____

Typed or printed name _____

Registration No. _____

This collection of information is required by 37 CFR 1.311. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, Virginia 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, Virginia 22313-1450.

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UNITED STATES PATENT AND TRADEMARK OFFICE

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United States Patent and Trademark Office
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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
12/146,892	06/26/2008	Daniel L. ROTH	2639/C51	5975
2101 7590 09/12/2011 Sunstein Kann Murphy & Timbers LLP 125 SUMMER STREET BOSTON, MA 02110-1618			EXAMINER LE, DANH C	
			ART UNIT	PAPER NUMBER

2617

DATE MAILED: 09/12/2011

Determination of Patent Term Adjustment under 35 U.S.C. 154 (b) (application filed on or after May 29, 2000)

The Patent Term Adjustment to date is 583 day(s). If the issue fee is paid on the date that is three months after the mailing date of this notice and the patent issues on the Tuesday before the date that is 28 weeks (six and a half months) after the mailing date of this notice, the Patent Term Adjustment will be 583 day(s).

If a Continued Prosecution Application (CPA) was filed in the above-identified application, the filing date that determines Patent Term Adjustment is the filing date of the most recent CPA.

Applicant will be able to obtain more detailed information by accessing the Patent Application Information Retrieval (PAIR) WEB site (<http://pair.uspto.gov>).

Any questions regarding the Patent Term Extension or Adjustment determination should be directed to the Office of Patent Legal Administration at (571)-272-7702. Questions relating to issue and publication fee payments should be directed to the Customer Service Center of the Office of Patent Publication at 1-(888)-786-0101 or (571)-272-4200.

Privacy Act Statement

The Privacy Act of 1974 (P.L. 93-579) requires that you be given certain information in connection with your submission of the attached form related to a patent application or patent. Accordingly, pursuant to the requirements of the Act, please be advised that: (1) the general authority for the collection of this information is 35 U.S.C. 2(b)(2); (2) furnishing of the information solicited is voluntary; and (3) the principal purpose for which the information is used by the U.S. Patent and Trademark Office is to process and/or examine your submission related to a patent application or patent. If you do not furnish the requested information, the U.S. Patent and Trademark Office may not be able to process and/or examine your submission, which may result in termination of proceedings or abandonment of the application or expiration of the patent.

The information provided by you in this form will be subject to the following routine uses:

1. The information on this form will be treated confidentially to the extent allowed under the Freedom of Information Act (5 U.S.C. 552) and the Privacy Act (5 U.S.C. 552a). Records from this system of records may be disclosed to the Department of Justice to determine whether disclosure of these records is required by the Freedom of Information Act.
2. A record from this system of records may be disclosed, as a routine use, in the course of presenting evidence to a court, magistrate, or administrative tribunal, including disclosures to opposing counsel in the course of settlement negotiations.
3. A record in this system of records may be disclosed, as a routine use, to a Member of Congress submitting a request involving an individual, to whom the record pertains, when the individual has requested assistance from the Member with respect to the subject matter of the record.
4. A record in this system of records may be disclosed, as a routine use, to a contractor of the Agency having need for the information in order to perform a contract. Recipients of information shall be required to comply with the requirements of the Privacy Act of 1974, as amended, pursuant to 5 U.S.C. 552a(m).
5. A record related to an International Application filed under the Patent Cooperation Treaty in this system of records may be disclosed, as a routine use, to the International Bureau of the World Intellectual Property Organization, pursuant to the Patent Cooperation Treaty.
6. A record in this system of records may be disclosed, as a routine use, to another federal agency for purposes of National Security review (35 U.S.C. 181) and for review pursuant to the Atomic Energy Act (42 U.S.C. 218(c)).
7. A record from this system of records may be disclosed, as a routine use, to the Administrator, General Services, or his/her designee, during an inspection of records conducted by GSA as part of that agency's responsibility to recommend improvements in records management practices and programs, under authority of 44 U.S.C. 2904 and 2906. Such disclosure shall be made in accordance with the GSA regulations governing inspection of records for this purpose, and any other relevant (i.e., GSA or Commerce) directive. Such disclosure shall not be used to make determinations about individuals.
8. A record from this system of records may be disclosed, as a routine use, to the public after either publication of the application pursuant to 35 U.S.C. 122(b) or issuance of a patent pursuant to 35 U.S.C. 151. Further, a record may be disclosed, subject to the limitations of 37 CFR 1.14, as a routine use, to the public if the record was filed in an application which became abandoned or in which the proceedings were terminated and which application is referenced by either a published application, an application open to public inspection or an issued patent.
9. A record from this system of records may be disclosed, as a routine use, to a Federal, State, or local law enforcement agency, if the USPTO becomes aware of a violation or potential violation of law or regulation.

Notice of Allowability	Application No.	Applicant(s)	
	12/146,892	ROTH, DANIEL L.	
	Examiner	Art Unit	
	DANH LE	2617	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 6/28/11.

2. ☐ An election was made by the applicant in response to a restriction requirement set forth during the interview on ____; the restriction requirement and election have been incorporated into this action.

3. ☒ The allowed claim(s) is/are 1-18.

4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____ .
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).
 * Certified copies not received: ____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.

6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 1) ☐ hereto or 2) ☐ to Paper No./Mail Date ____.

 (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date ____.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).

7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892) 2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 3. ☒ Information Disclosure Statements (PTO/SB/08), Paper No./Mail Date ____ 4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material	5. ☐ Notice of Informal Patent Application 6. ☐ Interview Summary (PTO-413), Paper No./Mail Date ____ . 7. ☐ Examiner's Amendment/Comment 8. ☒ Examiner's Statement of Reasons for Allowance 9. ☐ Other ____
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DETAILED ACTION

Allowable Subject Matter

1. The following is an examiner's statement of reasons for allowance:

Claims 1-18 are allowed as stated in the Applicant's remarks on pages 5-8.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Any inquiry concerning this communication or earlier communications from the examiner should be directed to DANH LE whose telephone number is (571)272-7868. The examiner can normally be reached on 8:00AM-5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, KENT W. CHANG can be reached on 571-272-7667. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

September 6, 2011

/DANH C LE/
Primary Examiner, Art Unit 2617

<i>Index of Claims</i> 	Application/Control No. 12146892	Applicant(s)/Patent Under Reexamination ROTH, DANIEL L.
	Examiner DANH C LE	Art Unit 2617

✓	Rejected	-	Cancelled	N	Non-Elected	A	Appeal
=	Allowed	÷	Restricted	I	Interference	O	Objected

☒ Claims renumbered in the same order as presented by applicant	☐ CPA	☐ T.D.	☐ R.1.47
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CLAIM		DATE								
Final	Original	09/06/2011								
	1	=								
	2	=								
	3	=								
	4	=								
	5	=								
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	17	=								
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Search Notes 	Application/Control No. 12146892	Applicant(s)/Patent Under Reexamination ROTH, DANIEL L.
	Examiner DANH C LE	Art Unit 2617

SEARCHED			
Class	Subclass	Date	Examiner
455	466, 418, 550.1	9/6/11	DCL
704	270	/	/

SEARCH NOTES		
Search Notes	Date	Examiner
Double Patent Check	9/6/11	DCL
EAST Searched (US, US PUB, EPO, JPO, DERWENT)	/	/

INTERFERENCE SEARCH			
Class	Subclass	Date	Examiner
Interference Checked	Text	9/6/11	DCL

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Receipt date: 11/19/2008

12146892 - GAU: 2617

PTO/SB/08b (09-08)

Approved for use through 10/31/2008. OMB 0651-0031

U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

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Substitute for form 1449A/PTO INFORMATION DISCLOSURE STATEMENT BY APPLICANT <i>(Use as many sheets as necessary)</i>				Complete if Known	
				Application Number	12/146,892-Conf. #5975
				Filing Date	June 26, 2008
				First Named Inventor	Daniel L. ROTH
				Art Unit	2617
				Examiner Name	Not Yet Assigned
Sheet	1	of	1	Attorney Docket Number	0112855.00141US3

U.S. PATENT DOCUMENTS					
Examiner Initials*	Cite No. ¹	Document Number Number-Kind Code ² (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
	AA*	US-2002/0142787-A1	10-03-2002	Holley et al.	
	AB*	US-2003/0014253-A1	01-16-2003	WALSH	
	AC*	US-2003/0088418-A1	05-08-2003	Kagoshima et al.	
	AD*	US-2003/0139922-A1	07-24-2003	Hoffmann et al.	
	AE*	US-6,163,765	12-19-2000	Andric et al.	
	AF*	US-6,760,703	07-06-2004	Kagoshima et al.	
	AG*	US-2002/0077811	06-20-2002	Koenig et al.	
	AH*	US-2002/0102966-A1	08-01-2002	Lev et al.	
	AI*	US-2002/0103646	08-01-2002	Kochanski et al.	

FOREIGN PATENT DOCUMENTS					
Examiner Initials*	Cite No. ¹	Foreign Patent Document Country Code ³ -Number ⁴ -Kind Code ⁵ (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages Or Relevant Figures Appear

NON PATENT LITERATURE DOCUMENTS			
Examiner Initials*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²
	CA*	International Searching Authority, International Search Report for PCT/US05/13478, mailed 28 Mar 2007, 4 pages	
	CB*	MASURKO, T. et al., "A Very Low Bit Rate Speech Coder Using HMM with Speaker Adaption", Ministry of Education, Science and Culture of Japan, Grant-in-Aid for Encouragement of Young Scientists, 09750399, 1997, 4 pages	
	CC*	PAGARKAR, M. H. et al., "Language Independent Speech Compression using Devanagari Phonetics", V.E.S. Institute of Technology, 7 pages DEC 1, 2003	

Examiner Signature	/Danh Le/	Date Considered	09/06/2011
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*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. * CITE NO.: Those application(s) which are marked with an asterisk (*) next to the Cite No. are not supplied (under 37 CFR 1.98(a)(2)(iii)) because that application was filed after June 30, 2003 or is available in the IFW. ¹ Applicant's unique citation designation number (optional). ² See Kind Codes of USPTO Patent Documents at www.uspto.gov or MPEP 901.04. ³ Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. ⁶ Applicant is to place a check mark here if English language Translation is attached.

US1DOCS 6866995v1

ALL REFERENCES CONSIDERED EXCEPT WHERE LINED THROUGH. /D.L./

Issue Classification 	Application/Control No. 12146892	Applicant(s)/Patent Under Reexamination ROTH, DANIEL L.
	Examiner DANH LE	Art Unit 2617

ORIGINAL						INTERNATIONAL CLASSIFICATION												
CLASS		SUBCLASS				CLAIMED					NON-CLAIMED							
455		466				H	O	4	Q	7 / 20 ()								
CROSS REFERENCE(S)																		
CLASS	SUBCLASS (ONE SUBCLASS PER BLOCK)																	
455	418	550.1																
704	270																	

☒ Claims renumbered in the same order as presented by applicant ☐ CPA ☐ T.D. ☐ R.1.47															
Final	Original	Final	Original	Final	Original	Final	Original	Final	Original	Final	Original	Final	Original	Final	Original

NONE		Total Claims Allowed:	
		18	
(Assistant Examiner)	(Date)		
/DANH LE/ Primary Examiner. Art Unit 2617	9/6/11	O.G. Print Claim(s)	O.G. Print Figure
(Primary Examiner)	(Date)	1	1

EAST Search History**EAST Search History (Prior Art)**

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
L4	93	@ad<"20040501" and (phonem\$4 diphon\$4 triphon\$4 syllables demisyllables symbol\$4 non-text nontext non adj1 text) with (speech voice utteran\$4) with (synthesi\$4 combin\$4 compound\$4) and (phonem\$4 diphon\$4 triphon\$4 syllables demisyllables symbol\$4 non-text nontext non adj1 text) with output\$4 with (device portable mobile)	US-PGPUB; USPAT	OR	ON	2011/09/06 09:58

EAST Search History (Interference)

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
L3	13	@ad>"20040501" and ((phonem\$4 diphon\$4 triphon\$4 syllables demisyllables symbol\$4 non-text nontext non adj1 text) with (speech voice utteran\$4) with (synthesi\$4 combin\$4 compound\$4) and output\$4 with (device portable mobile)).clm.	US-PGPUB; USPAT; UPAD	OR	ON	2011/09/06 09:56

9/ 6/ 2011 10:11:04 AM

H:\ Workspaces\ 12146892.wsp

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of: Daniel L. Roth
Application No.: 12/146,892
Filing Date: June 26, 2008
For: Voice Over Short Message Service

Group No.: 2617
Examiner: Danh C. Le

**Mail Stop Issue Fee
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450**

TRANSMITTAL OF PAYMENT OF ISSUE FEE (37 C.F.R. § 1.311)

1. Applicant hereby pays the issue fee for the attached Issue Fee Transmittal PTOL-85.
2. Fee (37 C.F.R. § 1.18 (a)):

Application status is other than a small entity.

3. Payment of fee:

Authorization is hereby made to charge the amount of \$2,043.00, including \$300.00 for publication fee and \$3.00 for advance of one copy to Deposit Account No. 19-4972.

Charge any additional fees required by this paper or credit any overpayment to Deposit Account No. 19-4972.

Date: November 18, 2011

/Jay Sandvos, #43,900/

Jay Sandvos
Registration No. 43,900
SUNSTEIN KANN MURPHY & TIMBERS LLP
125 Summer Street
Boston, MA 02110-1618
US
617-443-9292
Customer No. 02101

PART B - FEE(S) TRANSMITTAL

Complete and send this form, together with applicable fee(s), to: **Mail** Mail Stop ISSUE FEE
Commissioner for Patents
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Alexandria, Virginia 22313-1450
or Fax (571)-273-2885

INSTRUCTIONS: This form should be used for transmitting the ISSUE FEE and PUBLICATION FEE (if required). Blocks 1 through 5 should be completed where appropriate. All further correspondence including the Patent, advance orders and notification of maintenance fees will be mailed to the current correspondence address as indicated unless corrected below or directed otherwise in Block 1, by (a) specifying a new correspondence address; and/or (b) indicating a separate "FEE ADDRESS" for maintenance fee notifications.

CURRENT CORRESPONDENCE ADDRESS (Note: Use Block 1 for any change of address)

2101 7590 09/12/2011
Sunstein Kann Murphy & Timbers LLP
125 SUMMER STREET
BOSTON, MA 02110-1618

Note: A certificate of mailing can only be used for domestic mailings of the Fee(s) Transmittal. This certificate cannot be used for any other accompanying papers. Each additional paper, such as an assignment or formal drawing, must have its own certificate of mailing or transmission.

Certificate of Mailing or Transmission

I hereby certify that this Fee(s) Transmittal is being deposited with the United States Postal Service with sufficient postage for first class mail in an envelope addressed to the Mail Stop ISSUE FEE address above, or being facsimile transmitted to the USPTO (571) 273-2885, on the date indicated below.

(Depositor's name)
(Signature)
(Date)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
12/146,892	06/26/2008	Daniel L. ROTH	2639/C51	5975

TITLE OF INVENTION: VOICE OVER SHORT MESSAGE SERVICE

APPLN. TYPE	SMALL ENTITY	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	NO	\$1510	\$300	\$0	\$1810	12/12/2011

EXAMINER	ART UNIT	CLASS-SUBCLASS
LE, DANH C	2617	455-466000

1. Change of correspondence address or indication of "Fee Address" (37 CFR 1.363).

- ☐ Change of correspondence address (or Change of Correspondence Address form PTO/SB/122) attached.
- ☐ "Fee Address" indication (or "Fee Address" Indication form PTO/SB/47, Rev 03-02 or more recent) attached. **Use of a Customer Number is required.**

2. For printing on the patent front page, list

- (1) the names of up to 3 registered patent attorneys or agents OR, alternatively,
- (2) the name of a single firm (having as a member a registered attorney or agent) and the names of up to 2 registered patent attorneys or agents. If no name is listed, no name will be printed.

1 **Sunstein Kann Murphy & Timbers LLP**
 2
 3

3. ASSIGNEE NAME AND RESIDENCE DATA TO BE PRINTED ON THE PATENT (print or type)

PLEASE NOTE: Unless an assignee is identified below, no assignee data will appear on the patent. If an assignee is identified below, the document has been filed for recordation as set forth in 37 CFR 3.11. Completion of this form is NOT a substitute for filing an assignment.

(A) NAME OF ASSIGNEE

(B) RESIDENCE: (CITY AND STATE OR COUNTRY)

Voice Signal Technologies, Inc. **Woburn, MA**

Please check the appropriate assignee category or categories (will not be printed on the patent): ☐ Individual ☒ Corporation or other private group entity ☐ Government

4a. The following fee(s) are submitted:

- ☒ Issue Fee
- ☒ Publication Fee (No small entity discount permitted)
- ☒ Advance Order - # of Copies 1

4b. Payment of Fee(s): (Please first reapply any previously paid issue fee shown above)

- ☐ A check is enclosed.
- ☐ Payment by credit card. Form PTO-2038 is attached.
- ☒ The Director is hereby authorized to charge the required fee(s), any deficiency, or credit any overpayment, to Deposit Account Number 19-4972 (enclose an extra copy of this form).

5. Change in Entity Status (from status indicated above)

- ☐ a. Applicant claims SMALL ENTITY status. See 37 CFR 1.27. ☐ b. Applicant is no longer claiming SMALL ENTITY status. See 37 CFR 1.27(g)(2).

NOTE: The Issue Fee and Publication Fee (if required) will not be accepted from anyone other than the applicant; a registered attorney or agent; or the assignee or other party in interest as shown by the records of the United States Patent and Trademark Office.

Authorized Signature /Jay Sandvos, #43,900/

Date November 18, 2011

Typed or printed name Jay Sandvos

Registration No. 43,900

This collection of information is required by 37 CFR 1.311. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, Virginia 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, Virginia 22313-1450.

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Electronic Patent Application Fee Transmittal				
Application Number:		12146892		
Filing Date:		26-Jun-2008		
Title of Invention:		VOICE OVER SHORT MESSAGE SERVICE		
First Named Inventor/Applicant Name:		Daniel L. ROTH		
Filer:		Jay Sandvos		
Attorney Docket Number:		2639/C51		
Filed as Large Entity				
Utility under 35 USC 111(a) Filing Fees				
Description	Fee Code	Quantity	Amount	Sub-Total in USD(\$)
Basic Filing:				
Pages:				
Claims:				
Miscellaneous-Filing:				
Petition:				
Patent-Appeals-and-Interference:				
Post-Allowance-and-Post-Issuance:				
Utility Appl issue fee	1501	1	1740	1740
Publ. Fee- early, voluntary, or normal	1504	1	300	300

Description	Fee Code	Quantity	Amount	Sub-Total in USD(\$)
Extension-of-Time:				
Miscellaneous:				
Printed copy of patent - no color	8001	1	3	3
Total in USD (\$)				2043

Electronic Acknowledgement Receipt	
EFS ID:	11443397
Application Number:	12146892
International Application Number:	
Confirmation Number:	5975
Title of Invention:	VOICE OVER SHORT MESSAGE SERVICE
First Named Inventor/Applicant Name:	Daniel L. ROTH
Customer Number:	2101
Filer:	Jay Sandvos
Filer Authorized By:	
Attorney Docket Number:	2639/C51
Receipt Date:	18-NOV-2011
Filing Date:	26-JUN-2008
Time Stamp:	16:23:36
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	yes
Payment Type	Deposit Account
Payment was successfully received in RAM	\$2043
RAM confirmation Number	3393
Deposit Account	194972
Authorized User	
The Director of the USPTO is hereby authorized to charge indicated fees and credit any overpayment as follows: Charge any Additional Fees required under 37 C.F.R. Section 1.16 (National application filing, search, and examination fees) Charge any Additional Fees required under 37 C.F.R. Section 1.17 (Patent application and reexamination processing fees)	

Charge any Additional Fees required under 37 C.F.R. Section 1.19 (Document supply fees)

Charge any Additional Fees required under 37 C.F.R. Section 1.20 (Post Issuance fees)

Charge any Additional Fees required under 37 C.F.R. Section 1.21 (Miscellaneous fees and charges)

File Listing:

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1	Issue Fee Payment (PTO-85B)	DD2639C51IssueFee.pdf	219718	no	2
			3553ea064c0f056c62776d6da8e92012115e0673		

Warnings:

Information:

2	Fee Worksheet (SB06)	fee-info.pdf	33453	no	2
			4b04bbe578466f8f68a00a63da4d20f50d9d06ab		

Warnings:

Information:

Total Files Size (in bytes): 253171

This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503.

New Applications Under 35 U.S.C. 111

If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application.

National Stage of an International Application under 35 U.S.C. 371

If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.

New International Application Filed with the USPTO as a Receiving Office

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APPLICATION NO.	ISSUE DATE	PATENT NO.	ATTORNEY DOCKET NO.	CONFIRMATION NO.
12/146,892	12/20/2011	8081993	2639/C51	5975

2101 7590 11/30/2011
Sunstein Kann Murphy & Timbers LLP
125 SUMMER STREET
BOSTON, MA 02110-1618

ISSUE NOTIFICATION

The projected patent number and issue date are specified above.

Determination of Patent Term Adjustment under 35 U.S.C. 154 (b) (application filed on or after May 29, 2000)

The Patent Term Adjustment is 760 day(s). Any patent to issue from the above-identified application will include an indication of the adjustment on the front page.

If a Continued Prosecution Application (CPA) was filed in the above-identified application, the filing date that determines Patent Term Adjustment is the filing date of the most recent CPA.

Applicant will be able to obtain more detailed information by accessing the Patent Application Information Retrieval (PAIR) WEB site (<http://pair.uspto.gov>).

Any questions regarding the Patent Term Extension or Adjustment determination should be directed to the Office of Patent Legal Administration at (571)-272-7702. Questions relating to issue and publication fee payments should be directed to the Application Assistance Unit (AAU) of the Office of Data Management (ODM) at (571)-272-4200.

APPLICANT(s) (Please see PAIR WEB site <http://pair.uspto.gov> for additional applicants):

Daniel L. ROTH, Boston, MA;



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APPLICATION NUMBER	PATENT NUMBER	GROUP ART UNIT	FILE WRAPPER LOCATION
12/146,892	8081993	2617	9200



Correspondence Address/Fee Address Change

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APPLICATION NUMBER	PATENT NUMBER	GROUP ART UNIT	FILE WRAPPER LOCATION
12/146,892	8081993	2617	9200



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page 1 of 1