

AMENDED AND RESTATED SETTLEMENT AGREEMENT

THIS AMENDED AND RESTATED SETTLEMENT AGREEMENT ("Amended Settlement Agreement") is made as of April 3, 2009, by and between Calypso Wireless, Inc., a Delaware corporation ("Calypso Wireless"), and Drago Daic, an individual residing in Houston, Texas ("Daic").

WHEREAS, Drago Daic and other parties sued Calypso Wireless, Inc. and other parties in a lawsuit styled *Drago Daic, Curtis Scott Howell d/b/a Tribeca, Champion Classic, Inc. and U.S. Lights, Inc. v. Calypso Wireless, Inc., Carlos Mendoza and David Davila*, Cause No. 2004-63048 in the 151st District Court of Harris County, Texas (the "Daic Lawsuit"); and

WHEREAS a Final Judgment was rendered in the Daic Lawsuit, in favor of Daic and against Calypso Wireless, Inc. and other defendants, on December 8, 2006 (the "Daic Judgment") which all parties to this Agreement now agree is a valid and enforceable judgment under the laws of the State of Texas; and

WHEREAS, Calypso Wireless filed a lawsuit including a bill of review, seeking to set aside the Daic Judgment as to Calypso Wireless and also asserting claims against Daic, styled *Calypso Wireless, Inc. v. Drago Daic*, Cause No. 2007-22571 in the 151st District Court of Harris County, Texas (the "Calypso Wireless Bill of Review Lawsuit"), which all parties to this Agreement now agree is dismissed with prejudice; and

WHEREAS, Daic filed an application for turnover relief to enforce the Daic Judgment, with respect to certain patent rights owned by Calypso Wireless commonly known as "ASNAP" and more particularly described as United States Patent No. US 6,680,923 B1, together with all foreign patents for the same technology, as more particularly set forth the 2009 Patent Proceeds Assignment (as defined below), including the exhibits thereto (collectively, the "ASNAP Patent"); and

WHEREAS, Daic also filed an application for turnover relief to enforce the Daic Judgment, with respect to certain patent rights owned by Calypso Wireless commonly known as "Baxter Patents" and more particularly described as (i) United States Patent No. US 6,385,306; (ii) United States Patent No. US 6,765,996; (iii) United States Patent No. US 6, 839, 412; and (iv) United States Patent No. US 67, 031, 439, together with all foreign patents for the same technology, as more particularly set forth the 2009 Patent Proceeds Assignment, including the exhibits thereto (collectively, the "Baxter Patents"); and

WHEREAS, the 151st District Court entered orders granting turnover and injunction relief, both in the Daic Lawsuit and in the Calypso Wireless Lawsuit, with respect to the ASNAP Patent and Baxter Patents; and

WHEREAS, Daic and Calypso Wireless entered into a Settlement Agreement dated April 3, 2008 in an effort to resolve the disputes and litigation between them (the "Original Settlement Agreement") and the parties hereto have agreed that capitalized terms utilized herein and not otherwise defined shall have the meanings ascribed thereto in the Original Settlement Agreement;

WHEREAS, Calypso Wireless defaulted in certain of its obligations under the Original Settlement Agreement;

WHEREAS, Daic and Calypso Wireless have reached an agreement to resolve the defaults under the Original Settlement and, in connection therewith have further agreed to inter into this Amended Settlement Agreement for the purpose of (i) amending and restating the Original Settlement Agreement, (ii) evidencing their agreement, and (iii) implementing that agreement at a closing of the transactions contemplated hereby, such closing to occur simultaneous with the execution of this Amended Settlement Agreement (the "Closing");

WHEREAS, while Williamson P.C. was not a party to the Original Settlement Agreement, Williamson P.C. did receive certain promissory notes and other consideration provided for therein, a portion of which is being amended or cancelled, and accordingly, Williamson PC has joined in the execution of this Amended Settlement Agreement;

NOW, THEREFORE, in consideration of the mutual covenants set forth herein, Daic, Williamson P.C., Curtis Scott Howell d/b/a Tribeca, Champion Classic, Inc., U.S. Lights, Inc. and Calypso Wireless agree as follows:

1. Contemporaneously with the closing of the Original Settlement Agreement (the "Original Closing"), Calypso Wireless paid to Daic and Williamson P.C., the sum of ONE HUNDRED THOUSAND AND NO/100 DOLLARS (\$100,000.00) (the "Original \$100,000 Cash Payment"), as required by the terms of the Original Settlement Agreement.

2. At the Original Closing, Calypso Wireless executed and delivered to Daic and Williamson P.C. a promissory note made payable to Daic and Williamson, P.C. in the original principal amount of NINE HUNDRED THOUSAND AND NO/100 DOLLARS (\$900,000.00), bearing interest at the JP Morgan Chase prime rate plus 1%, and being due and payable within thirty days from the Original Closing, or on May 3, 2008 (the "Original \$900K Promissory Note"). The Original \$900K Promissory Note was not paid, and the failure to pay such note was

a default under the Original Settlement Agreement. As a portion of the consideration for this Amended Settlement Agreement, Daic and Williamson hereby agree that effective as of the Closing, the Original \$900K Promissory Note, including all accrued and unpaid interest thereon, is cancelled.

3. At the Original Closing, Calypso Wireless executed and delivered to Daic and Williamson P.C. a promissory note made payable to Daic and Williamson, P.C. in the original principal amount of THREE HUNDRED FIFTY THOUSAND AND NO/100 DOLLARS (\$350,000.00), bearing interest at the JP Morgan Chase prime rate plus 1%, and being due and payable within sixty days from the Original Closing, or on June 2, 2008 (the "Original \$350K Promissory Note"). Only \$50,000 of the Original \$350K Promissory Note was paid, and the failure to pay the remainder of such note was a default under the Original Settlement Agreement. As a portion of the consideration for this Amended Settlement Agreement, Daic and Williamson hereby agree that effective as of the Closing, the Original \$350K Promissory Note, including all accrued and unpaid interest thereon, is cancelled.

4. At the Original Closing, Calypso Wireless executed and delivered to Daic and Williamson P.C. a promissory note made payable to Daic and Williamson, P.C. in the original principal amount of ONE MILLION AND NO/100 DOLLARS (\$1,000,000.00), bearing interest at the JP Morgan Chase prime rate plus 1%, and being due and payable in twelve months from Closing, or on April 3, 2009 (the "Original \$1M Promissory Note"). Calypso has acknowledged to Daic that it will be unable to pay the Original \$1M Promissory Note when due. As a portion of the consideration for this Amended Settlement Agreement, Daic and Williamson hereby agree

that effective as of the Closing, the Original \$1M Promissory Note, including all accrued and unpaid interest thereon, is cancelled.

5. At the Original Closing, Calypso Wireless sold, assigned, and transferred to Daic and Williamson P.C. an undivided twenty-five (25%) interest in and to the ASNAP Patent and Baxter Patents, pursuant to the Assignment Agreement. As a portion of the consideration for this Amended Settlement Agreement, Daic and Williamson hereby agree that effective as of the Closing, the Assignment Agreement is hereby terminated and of no further force or effect. At the Closing, Daic and Williamson P.C. shall execute and deliver to Calypso a Termination of Assignment Agreement in the form attached hereto as Exhibit "A" (the "Termination of Assignment Agreement") pursuant to which Daic and Williamson P.C. shall effect the termination of their ownership interest in the ASNAP Patent and Baxter Patents. In connection therewith, Daic and Williamson P.C. shall cause the termination of its direct interest in the ASNAP Patent and the Baxter Patents to be recorded with the United States Patent and Trademark Office. Pursuant to the Original Settlement Agreement, once Daic and Williamson P.C. had received an aggregate of TWENTY MILLION DOLLARS (\$20,000,000.00) in cash under the Assignment Agreement, Daic and Williamson P.C. were obligated to re-convey to Calypso Wireless all rights received pursuant to the Assignment Agreement and Calypso was obligated to execute and deliver to Daic and Williamson P.C. a Patent Proceeds Assignment pursuant to which Calypso would pay to Daic and Williamson P.C. five percent (5%) of the proceeds of the ASNAP Patent and Baxter Patents, without limit (such assignment having been referred to in the Original Settlement Agreement as the "Patent Proceeds Assignment", but referred to in this Amended Settlement Agreement as the "Original Patent Proceeds

Assignment"). As a portion of the consideration for this Amended Settlement Agreement, the parties agree that the obligation to execute and deliver the Original Patent Proceeds Assignment is hereby terminated; however, at the Closing, Calypso shall execute and deliver to Daic and Williamson P.C. a Patent Proceeds Assignment in the form attached hereto as Exhibit "B" (the "2009 Patent Proceeds Assignment") pursuant to which Calypso shall, among other things, pay to Daic certain proceeds arising out of the ASNAP Patent and Baxter Patent, as more fully set forth in the 2009 Patent Proceeds Assignment.

6. At the Original Closing, Calypso Wireless granted a security interest in the ASNAP Patent and Baxter Patents to secure Calypso Wireless' obligations under the Original Settlement Agreement and the documents executed at the Original Closing, pursuant to a Patent Mortgage and Security Agreement (such agreement having been referred to in the Original Settlement Agreement as the "Patent Mortgage and Security Agreement", but referred to in this Amended Settlement Agreement as the "Original Patent Mortgage and Security Agreement"). At the Closing, Calypso shall execute and deliver to Daic and Williamson P.C. an Amended and Restated Patent Mortgage and Security Agreement in the form attached hereto as Exhibit "C" (the "Amended Patent Mortgage and Security Agreement"), which Amended Patent Mortgage and Security Agreement will supersede and replace in its entirety the Original Patent Mortgage and Security Agreement.

7. At the Original Closing, Calypso Wireless agreed that it would issue, assign and deliver to Daic and Williamson P.C. TWELVE MILLION (12,000,000) shares of common stock in Calypso Wireless (the "Calypso Shares") out of its authorized and unissued shares. Calypso Wireless did deliver a certificate representing SEVEN MILLION (7,000,000) of the Calypso

Shares at the Original Closing; however, Calypso defaulted on its obligation to deliver a certificate for the remaining FIVE MILLION (5,000,000) of the Calypso Shares (the "Remaining Shares"). Based upon its failure to deliver the Remaining Shares and/or shares provided for in any extension agreements, Calypso Wireless also agreed to issue to Daic and Williamson P.C. EIGHT MILLION FOUR HUNDRED THOUSAND (8,400,000) additional shares of Calypso Wireless (the "Additional Shares") out of its authorized and unissued shares; however, to date, Calypso has failed to issue and deliver such additional shares. Accordingly, Calypso Wireless acknowledges that it has an obligation to issue, assign and deliver to Daic and Williamson P.C. THIRTEEN MILLION FOUR HUNDRED THOUSAND (13,400,000) shares of common stock in Calypso Wireless out of its authorized and unissued shares, and will deliver a certificate representing such 13,400,000 shares (constituting the Remaining Shares and the Additional Shares) to Daic and Williamson P.C. within fifteen (15) days of the Closing (April 17, 2009). Further, within six months of the Closing (October 2, 2009) Calypso Wireless will cause the removal of the restrictions on the 7,000,000 shares of common stock of Calypso Wireless delivered to Daic and Williamson P.C. at the Original Closing.

Calypso Wireless, as the issuer of the Calypso Shares, agrees to have its securities counsel provide an opinion letter pursuant to Securities Act Rule 144 to Calypso Wireless and its transfer agent to permit the transfer and sale of the Calypso Shares as and when such opinion letter is required under Rule 144. Daic and Williamson P.C. agree to provide the requisite representation letters from Daic and Williamson P.C. and their brokers. Calypso Wireless agrees to use its best efforts to meet the current publication requirement of the Securities Act Rule 144 and file and keep current filings for all required SEC reports, e.g. 10KSB, 10QSB, etc.

8. The parties acknowledge that pursuant to the Original Settlement Agreement, Daic and Williamson P.C. and Calypso Wireless filed (i) an Agreed Order Dismissing Case with Prejudice, with respect to the Calypso Wireless Bill of Review Lawsuit, and (ii) an Agreed Order Dismissing Turnover Relief in the Daic Lawsuit (collectively the "Agreed Orders"). While under the Original Settlement Agreement, the failure of Calypso Wireless to deliver all of the Calypso Shares that were required to be delivered pursuant to paragraphs 1, 2, 3 and 7 of the Original Settlement Agreement gave rise to reinstatement of the turnover relief after judgment that is the subject of the Agreed Order in clause (ii) above, the parties have agreed not to reinstate the turnover relief after judgment as of this time.

9. As a result of the default by Calypso Wireless under the Original Settlement Agreement and the execution by each of the parties of this Amended Settlement agreement, all obligations of Daic to release the Daic Judgment are hereby terminated in all respects. Instead, Calypso Wireless hereby acknowledges and confirms that the Daic Judgment is final and in full force and effect, and that Calypso Wireless has no defenses to payment of the Daic Judgment. In connection therewith, the parties acknowledge and confirm that an aggregate of \$146,050,645 (one hundred forty six million, fifty thousand and six hundred forty five dollars), including accrued interest through March 24, 2009, is due and owing under the Daic Judgment, and that all unpaid amounts of the Daic Judgment shall accrue interest at 10% (ten percent) per annum until paid. In connection with the foregoing, Daic agrees not to execute or collect upon the Daic Judgment so long as Calypso Wireless has not defaulted upon its obligations hereunder or any of the agreements executed in connection herewith.

10. Each of the parties hereto agree and acknowledge that the T-Mobile Litigation (as defined in the 2009 Patent Proceeds Assignment) has been properly filed, and that the parties may proceed with such litigation. In connection with the foregoing, Calypso Wireless agrees not to interfere with or hinder the T-Mobile Litigation in any fashion. Further, the parties agree that Daic shall be joined as a plaintiff in the T-Mobile Litigation, and that Daic's written consent shall be required to settle the T-Mobile Litigation and/or to enter into any license, assignment or sale of the ASNAP Patent and/or the Baxter Patents.

11. Calypso Wireless covenants and agrees that, except with respect to the proposed increase in the number of authorized shares of Calypso Wireless from 200,000,000 shares of common stock to 240,000,000 shares, Calypso Wireless shall not increase its authorized shares of capital stock without written consent of Daic.

12. Time is of the essence. Default shall be conclusively shown, with respect to monetary payments, by payments not being made and received on the due date.

The following items will also be a default for the purposes of this Amended Settlement Agreement:

- (a) Any attempt to arrange, negotiate or consummate any sort of transfer or assignment or impairment of the ASNAP Patent or Baxter Patents such that it would have an adverse impact upon the rights of Daic to collect all of the amounts referred to herein;
- (b) Any attempt to materially secrete or hide assets of Calypso Wireless that would affect the rights of Daic to collect all monies contemplated in this agreement.

Should Calypso Wireless fail to pay all amounts due hereunder or under the 2009 Patent Proceeds Assignment, or make timely delivery of all of the Remaining Shares or Additional Shares, then Daic shall have the right to execute upon and collect the Daic Judgment. Default

shall be conclusively shown, with respect to monetary payments, by payments not being made and received by the due date. Default shall be conclusively shown, with respect to the Remaining Shares or Additional Shares, by failure to deliver a certificate representing the Remaining Shares or Additional Shares enumerated herein in Paragraph 7 on the due dates.

13. Calypso Wireless hereby releases, acquits and forever discharges Drago Daic, Curtis Scott Howell d/b/a Tribeca, Champion Classic, Inc., U.S. Lights, Inc., and Jimmy Williamson, P.C., from any and all claims, demands and causes of action that Calypso Wireless may now own or be entitled to assert against each of them.

14. Contingent upon the timely receipt of all the consideration provided for in this Amended Settlement Agreement, including the delivery of a certificate evidencing the Remaining Shares, and the Additional Shares, after the Closing, Daic, Curtis Scott Howell d/b/a Tribeca, Champion Classic, Inc., and U.S. Lights, Inc., hereby releases, acquits and forever discharges Calypso Wireless from any and all claims, demands and causes of action that they/it may now own or be entitled to assert against it, including all claims that were or could have been asserted against Calypso Wireless in the Daic Lawsuit or the Calypso Bill of Review Lawsuit; provided, however, the foregoing release shall not be applicable to the Daic Judgment or any other obligations of Calypso Wireless under the Amended Settlement Agreement or any other documents executed in connection therewith. Nothing herein releases the Daic Judgment against Carlos Mendoza or David Davila.

15. Each party represents and warrants to the other (i) that he or it has been represented by attorneys in connection with the negotiation and drafting of this Amended Settlement Agreement, and has relied on the advice of his or its own attorneys in entering into

this Amended Settlement Agreement; and (ii) that in entering into this Amended Settlement Agreement, he or it is not relying on any agreement, representation or promise except as expressly set forth herein.

16. This Amended Settlement Agreement may be signed in multiple counterparts and shall be effective as of the date of the last signature as reflected below.

17. This Amended Settlement Agreement is made and performable in Harris County, Texas, and the validity, effect, and construction of this Amended Settlement Agreement shall be governed by the laws of the State of Texas.

18. In the event that any one or more of the provisions of this Amended Settlement Agreement shall, for any reason, be held invalid, illegal, or unenforceable in any respect, such invalidity, illegality, or unenforceability shall not affect any other provision of this Amended Settlement Agreement.

19. This Amended Settlement Agreement may not be amended, modified, waived, or terminated unless by writing and a notarized signature by all parties hereto.

20. This Amended Settlement Agreement shall not be construed in favor of or against any party on the basis that the party did or did not author this Settlement Agreement, including any attachment hereto. It is intended that this Amended Settlement Agreement shall be comprehensive in nature and shall be construed liberally to affect its purposes.

21. Each signatory to this Amended Settlement Agreement hereby warrants and represents that such person has authority to bind the party for whom such person acts, and the claims, rights, and/or interests which are the subject matter hereto are owned by the party asserting same, have not been assigned, transferred or sold, and are free of any encumbrances.

22. All payments and obligations provided for in the Amended Settlement Agreement to Daic shall be due and payable to Daic and/or his designee (or to his estate should Daic be deceased) and to Jimmy Williamson, P.C. Any and all payments made or shares of stock provided by Calypso Wireless to Daic and/or Jimmy Williamson, P.C. shall be retained by Daic and/or Jimmy Williamson, P.C., notwithstanding the amendment of the Original Settlement Agreement pursuant to this Amended Settlement Agreement.

23. The parties agree that this Amended Settlement Agreement, including the documents referred to herein, constitutes the full, final and complete settlement of the differences between them and supersedes all other written or oral exchanges, representations, agreements, or understandings between them concerning the subject matter of this Amended Settlement Agreement, including the Original Settlement Agreement, and further agree that there are no exchanges, representations, agreements, or understandings, oral or written, concerning the subject matter of this Settlement Agreement that are not fully expressed and incorporated herein.

(Remainder of Page Intentionally Left Blank)

CALYPSO WIRELESS:

CALYPSO WIRELESS, INC.

By: [Signature]
Name: RICHARD S. PATTIN
Title: President

Date: April 3, 2009

STATE OF TEXAS

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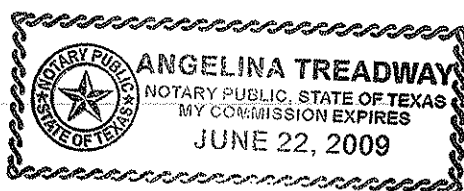
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COUNTY OF HARRIS

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BEFORE ME, the undersigned authority, on this 3rd day of April, 2009, personally appeared RICHARD S. PATTIN, the PRESIDENT of Calypso Wireless, Inc., a Delaware corporation, known to me to be the person and officer whose name is subscribed to the foregoing instrument and acknowledged to me that he executed the same of his own free will for the purposes and consideration therein expressed and on behalf of said corporation.

[Seal]



[Signature]
Signature of Notary

(Signatures Continued on Following Page)

DAIC:


Drago Daic

Date: April 3 2009

STATE OF TEXAS

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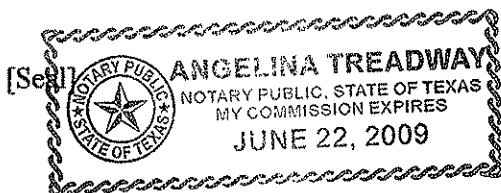
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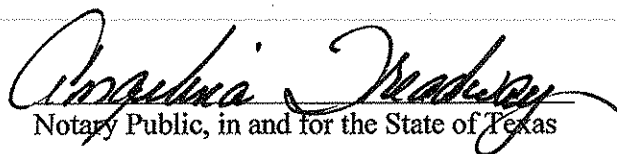
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COUNTY OF HARRIS

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Before me, a notary public, on this 3rd day of April, 2009, personally appeared Drago Daic, known to me to be the person whose name is subscribed to the foregoing document and, being by me first duly sworn, declared that the statements therein contained are true and correct.




Notary Public, in and for the State of Texas

(Signatures Continued on Following Page)

CURTIS SCOTT HOWELL D/B/A TRIBECA:

CURTIS SCOTT HOWELL D/B/A TRIBECA

By: Curtis Scott Howell
Name: Curtis Scott Howell
Title: OWNER

Date: April 3, 2009

STATE OF TEXAS

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§ ss.

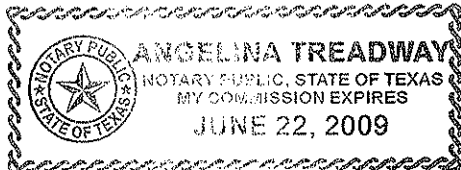
COUNTY OF HARRIS

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Before me, a notary public, on this 3rd day of April, 2009, personally appeared Curtis Scott Howell, known to me to be the person whose name is subscribed to the foregoing document and, being by me first duly sworn, declared that the statements therein contained are true and correct.

Angelina Treadway
Notary Public, in and for the State of Texas


[Seal]



(Signatures Continued on Following Page)

CHAMPION CLASSIC, INC.:

CHAMPION CLASSIC, INC.

By: 
Name: DRAGO DAIC
Title: PRESIDENT

Date: April 3, 2009

STATE OF TEXAS

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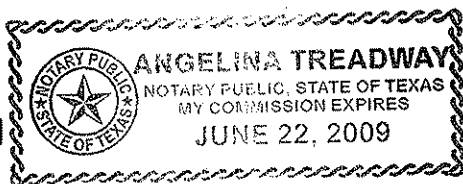
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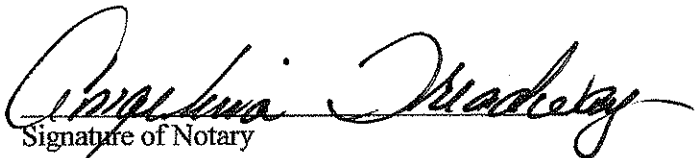
COUNTY OF HARRIS

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BEFORE ME, the undersigned authority, on this 3rd day of April, 2009, personally appeared DRAGO DAIC, the PRESIDENT of Champion Classic, Inc., a _____ corporation, known to me to be the person and officer whose name is subscribed to the foregoing instrument and acknowledged to me that he executed the same of his own free will for the purposes and consideration therein expressed and on behalf of said corporation.

[Seal]




Signature of Notary

(Signatures Continued on Following Page)

U.S. LIGHTS, INC.:

U.S. LIGHTS, INC.

By: 

Name: DRAGO DAIC

Title: PRESIDENT

Date: April 3, 2009

STATE OF TEXAS

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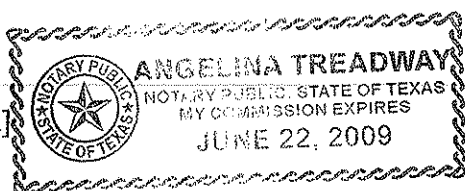
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COUNTY OF HARRIS

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BEFORE ME, the undersigned authority, on this 3rd day of April, 2009, personally appeared DRAGO DAIC, the PRESIDENT of U.S. Lights, Inc., a _____ corporation, known to me to be the person and officer whose name is subscribed to the foregoing instrument and acknowledged to me that he executed the same of his own free will for the purposes and consideration therein expressed and on behalf of said corporation.

[Seal]




Signature of Notary

(Signatures Continued on Following Page)

JIMMY WILLIAMSON, P.C.

JIMMY WILLIAMSON, P.C.,
a Texas professional corporation

By: Cyndi Rusnak
Cyndi Rusnak, Authorized Representative

STATE OF TEXAS

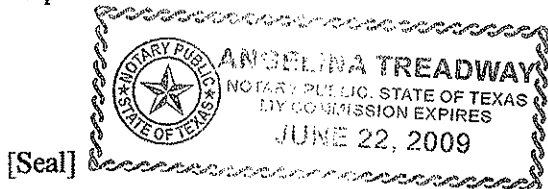
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§ ss.

COUNTY OF HARRIS

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BEFORE ME, the undersigned authority, on this 3rd day of April, 2009, personally appeared Cyndi Rusnak, Authorized Representative of Jimmy Williamson, P.C. d/b/a Williamson & Rusnak, a Texas professional corporation, known to me to be the person whose name is subscribed to the foregoing instrument and acknowledged to me that she executed the same of her own free will for the purposes and consideration therein expressed and on behalf of said corporation.



Angelina Treadway
Signature of Notary

EXHIBIT "A"

TERMINATION OF ASSIGNMENT AGREEMENT

This **TERMINATION OF ASSIGNMENT AGREEMENT** (this "Termination") is executed this the 30 day of April, 2009 (the "Effective Date"), by and between **CALYPSO WIRELESS, INC.**, a Delaware corporation ("Calypso"), **JIMMY WILLIAMSON, P.C.**, a Texas professional corporation ("Williamson"), and **DRAGO DAIC**, an individual residing in Houston, Texas ("Daic", and together with Williamson, the "Assignees").

WITNESSETH:

WHEREAS, a dispute had arisen between. Calypso and Daic with respect to certain patent rights owned by Calypso;

WHEREAS, Calypso and Daic entered into that certain Settlement Agreement dated April 3, 2008 in an effort to resolve such dispute (the "Original Settlement Agreement");

WHEREAS, pursuant to the Original Settlement Agreement, Calypso and the Assignees entered into that certain Assignment Agreement with Respect to Undivided Interest in Patent dated April 3, 2008 (the "Assignment Agreement"), whereby Calypso assigned to the Assignees an undivided twenty-five percent (25%) interest in and to the Patents, as that term is defined in the Assignment Agreement, pursuant to the terms more particularly described in the Assignment Agreement;

WHEREAS, Calypso defaulted in certain of its obligations under the Original Settlement Agreement;

WHEREAS, Calypso and the Assignees have entered into that certain Amended and Restated Settlement Agreement dated April , 2009, providing for the resolution of such defaults under the Original Settlement Agreement (the "Amended Settlement Agreement");

WHEREAS, pursuant to the Amended Settlement Agreement, Calypso and the Assignees desire to teuninate the Assignment Agreement;

NOW, THEREFORE, for and in consideration of the mutual covenants and agreements contained herein, the receipt and sufficiency of which are hereby acknowledged by the parties hereto, the parties hereto hereby agree as follows:

1 **Termination of Assignment Agreement.** Calypso and the Assignees hereby acknowledge the termination of, and hereby agree to terminate, the Assignment Agreement, effective as of the Effective Date. The Assignees acknowledge and agree that, effective as of the Effective Date, any and all interest in the Patents, as that term is defined in the Assignment Agreement, held by the Assignees shall be, and hereby is, terminated.

2. Governing Law. This Termination shall be governed under the laws of the State of Texas without regard to choice of law principles or conflicts of law rules.

3. Further Assurances. The parties hereto agree to execute and deliver such instruments as are reasonably necessary to effectuate the transactions contemplated by this Termination.

4. Binding Effect. This Termination and all the terms and provisions hereof, shall be binding upon and shall inure to the benefit of Calypso and the Assignees, and their respective successors and permitted assigns.

5. Invalidity. In case any one or more of the provisions contained in this Termination shall for any reason be held to be invalid, illegal, or unenforceable in any respect, such invalidity, illegality, or unenforceability shall not affect any other provision of this Termination, and this Termination shall be construed as if such invalid, illegal or unenforceable provision had never been included in the Termination.

6. Amendments. No amendment, modification, or alteration of the terms of this Termination shall be binding unless the same is in writing, dated subsequent to the date of this Termination, and duly executed by the parties to this Termination.


7. Counterparts. This Termination may be executed in multiple counterparts, each of which shall constitute an original, but all of which shall constitute one and the same Termination.

8. Entire Agreement. This Termination constitutes the entire agreement of the parties with respect to the subject matter contained herein, and supersedes any prior agreements or understandings, whether oral or written, between the parties with respect thereto, if any.

IN WITNESS WHEREOF, the parties have executed this Termination to be effective as of the Effective Date.

CALYPSO:

CALYPSO WIRELESS, INC.,
a Delaware corporation

By: 
Name: RICHARD S. PATTON
Title: President

ASSIGNEES:

JIMMY WILLIAMSON, P.C.
a Texas professional corporation

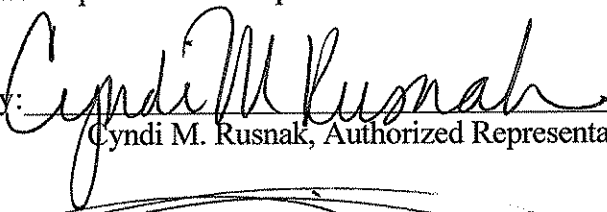

By: 
Cyndi M. Rusnak, Authorized Representative

DRAGO DACIC

EXHIBIT "B"
2009 PATENT PROCEEDS ASSIGNMENT

THIS 2009 PATENT PROCEEDS ASSIGNMENT ("Patent Proceeds Assignment") is entered into by and between Drago Daic, an individual residing in Houston, Texas ("Daic"), Jimmy Williamson, P.C., a Texas professional corporation ("Williamson PC") (Daic and Williamson being collectively referred to as the "Daic Parties"), and Calypso Wireless, Inc., a Delaware corporation ("Calypso"), on this day of April, 2009.

WITNESSETH

WHEREAS, Daic and other parties sued Calypso and other parties in a lawsuit styled *Drago Daic, Curtis Scott Howell d/b/a Tribeca, Champion Classic, Inc. and U.S. Lights, Inc. v. Calypso Wireless, Inc., Carlos Mendoza and David Davila*, Cause No. 2004-63048 in the 151st District Court of Harris County, Texas (the "Daic Lawsuit") which related to certain patent rights owned by Calypso commonly known as "ASNAP" and "Baxter" and more particularly described as (i) United States Patent No. US 6,680,923 B 1 , U.S. Patent Application Serial No. 11/040,482, and PCT Application No. PCT/US01/07528 and such other patents and applications set forth on Exhibit "A" attached hereto, (ii) United States Patents No. 6,385,306, No. 6,765,996, No. 6,839,412 and No. 7,031,439; and (iii) all substitutions for and divisions, continuations, continuations-in-part, renewals, reissues, national phase entries, and extensions of such patents and applications throughout the world, including but not limited to all applications and patents that claim priority, directly or indirectly, in whole or in part, from such patents and applications, the foregoing items (i), (ii) and (iii) including patent applications and applications for like protection that have now been or may in the future be granted on the invention disclosed in such patent, including without limitation, those obtained or permissible under past, present, and future laws and statutes (collectively, the "ASNAP and Baxter Patents");

WHEREAS, a Final Judgment was rendered in the Daic Lawsuit, in favor of Dale and against Calypso and other defendants, on December 8, 2006 (the "Daic Judgment"), which all parties to this Patent Proceeds Assignment now agree is a valid and enforceable judgment under the laws of the State of Texas;

WHEREAS, the Parties have entered into that certain Amended Settlement Agreement between the parties hereto dated April , 2009 with respect to payment of the Daic Judgment (the "Amended Settlement Agreement");

WHEREAS, pursuant to the terms of the Amended Settlement Agreement and in furtherance of the payment of the Daic Judgment, Calypso agreed to assign a portion of the proceeds from the ASNAP and Baxter Patents to the Daic Parties pursuant to the terms and conditions contained in this Patent Proceeds Assignment;

NOW, THEREFORE, in consideration of the execution of the Amended Settlement Agreement, and other good and valuable consideration, the receipt and sufficiency of which are acknowledged herewith by the Parties, and the mutual covenants and promises hereinafter made, it is mutually agreed by and between the parties, as follows:

1. **Definitions.** The following capitalized terms used in this Patent Proceeds Assignment have the following meanings:

"Proceeds" shall mean the value of all consideration paid to Calypso attributable to: (i) the revenues realized by Calypso in connection with the use, sale, or importation of a method or product falling within at least one claim of the ASNAP and Baxter Patents, (ii) the license of ASNAP and Baxter Patents (or any portion thereof) to a third party, (iii) the assignment of the ASNAP and Baxter Patents (or any portion thereof) to a third party; (iv) any and all litigation relating to the ASNAP and Baxter Patents including, but not limited to, Case No. 2:08-cv-TJW-CE; Calypso Wireless, Inc. v. T-Mobile USA, Inc.; In the U.S. District Court for the Eastern District of Texas (Marshall Div) (the "T-Mobile Litigation"), (v) the sale of the ASNAP and Baxter Patents or any portion thereof; and/or (vi) any and all other revenue of any kind whatsoever realized by Calypso arising from the ASNAP and Baxter Patents, further including but not limited to all monies, revenues, and non-monetary consideration received in settlement of or as damages for (including enhanced damages) any dispute, suit, action, or claim arising out of or related to the ASNAP and Baxter Patents.

"Affiliate" shall mean with respect to any specified Person, any Person that, directly or indirectly, controls, is controlled by, or is under common control with, such specified Person, through one or more intermediaries or otherwise.

"Person" shall mean any individual, corporation, partnership, joint venture, association, joint-stock company, trust, unincorporated organization, limited liability company or government or other entity.

2. **Term.** This Patent Proceeds Assignment shall be effective until the later to occur of the expiration of all ASNAP and Baxter Patents or the final payment of all amounts arising out of any litigation relating to the ASNAP and Baxter Patents (the "Term").

3. **Payment.** Calypso hereby agrees to pay the Daic Parties as follows (herein, the "ASNAP/Baxter Payments"):

- (a) one hundred percent (100%) of the Proceeds until such time as the Daic Parties have received the sum of \$3.5 million plus interest at six percent (6%) per annum on \$3.5 million from April 2, 2009 to the date of payment thereof; *The \$3.5 million payment will be applied to a reduction of principal from the Daic Judgement.*
- RSE*
CMK for JWC
(b) after all amounts provided for in clause (a) have been paid in full, fifty percent (50%) of the Proceeds until such time as the Daic Parties have received pursuant to clause (a) above and this clause (b) in an amount sufficient to pay in full the Daic Judgment (as further described in the Amended Settlement Agreement), including all accrued and unpaid interest thereon;
- (c) after all amounts provided for in clauses (a) and (b) have been paid in full, five percent (5) of the Proceeds.

All ASNAP/Baxter Payments shall be made and delivered to the Daic Parties in care of the Jimmy Williamson, P.C., trust account. Simultaneous with the execution of this Patent Proceeds Assignment, Williamson shall provide Calypso with the details of the Jimmy Williamson, P.C. trust account and shall update such information as it may change from time to time. To the extent that ASNAP/Baxter Payments are to be made from revenues received from a third party, whether through sale, licensing or otherwise, Calypso shall require that such third party make all ASNAP/Baxter Payments directly to the Jimmy Williamson, P.C. trust account. Such third party payments shall include, without limitation, any and all amounts arising under the T-Mobile Litigation; however, amounts due as a result of the T-Mobile Litigation shall be payable after deduction for attorney's fees and expenses of the attorneys.

All of said ASNAP/Baxter Payments that are not paid directly by third parties to the Daic Parties shall be due and payable to the Daic Parties and/or their respective designees within thirty (30) days of the end of each calendar quarter for Proceeds received by Calypso or due to Calypso during the immediately preceding calendar quarter.

4. **Payment Reports.** Along with the ASNAP/Baxter Payments, Calypso shall also provide to the Daic Parties, within thirty (30) days after the end of each calendar quarter during which any ASNAP/Baxter Payments are due, a report, duly certified by an officer or authorized agent of Calypso having capacity to so certify, specifying: (a) the time period covered by the report; (b) the total Proceeds received by or due to Calypso in such quarter; and (c) the ASNAP/Baxter Payment amount payable to the Daic Parties (the "Reports").

5. **Audit.** Calypso shall make and retain true and accurate records, files and books of account containing all the data reasonably required for the full computation and verification of the ASNAP/Baxter Payments to be paid and the information to be given in the Reports for no less than three (3) years after each such calendar quarter. Once each year during the Term of this Agreement, Calypso shall permit an independent audit of such records, files and books of account, by an independent accountant of the Daic Parties' choosing (the "Daic Parties' Accountant"), and at the Daic Parties' cost (except as provided below), upon reasonable notice to Calypso by the Daic Parties. The selection of the Daic Parties' Accountant shall be subject to the approval of Calypso, which approval shall not be unreasonably withheld or delayed. The Daic Parties' Accountant shall limit his/her review only to those materials reasonably necessary, in the discretion of said Daic Parties' Accountant, to determine the accuracy of said Reports and the amounts due and owing under this Patent Proceeds Assignment, if any. The Daic Parties' Accountant shall maintain the confidentiality of all materials so reviewed, even as to the Daic Parties, limiting his/her reporting (herein, the "Daic Parties' Accountants' Report") to the Daic Parties, with a copy to Calypso, only to whether or not the Reports are accurate and the amount of any discrepancy. If, as a result of any such audit, it is determined that additional payments were due and owing to the Daic Parties from Calypso ("Additional Payment"), such Additional Payment shall be paid to the Daic Parties within thirty (30) days of the mutual verification of said discrepancy by Calypso. In the event the Parties are unable to agree as to the Additional Payment, if any, within sixty (60) days of the submission of the Daic Parties' Accountant's Report to the Daic Parties with a copy to Calypso, then the Parties shall jointly engage the services of either the Houston office of UHY Ltd. or BKD (so long as none of the parties have utilized the services of such firm(s) within the five year period prior to such engagement), as

determined by agreement of the Daic Parties and Calypso (and if no such agreement can be made, then chosen at random by a drawing supervised by counsel for the Parties), with the accounting firm so chosen referred to herein as the "Neutral Accountant". Upon such selection, the parties shall submit the Reports, together with the Daic Parties' Accountant's Report and the work papers of the Daic Parties' Accountant, to the Neutral Accountant for review, whose determination as to the accuracy of said Reports and the amount of any discrepancy shall be final. If both of such firms are excluded as a result of having worked for either of the Daic Parties or Calypso, the parties shall jointly choose another regional accounting firm as the Neutral Accountant. The cost of such audit shall be shared equally by Calypso and the Daic Parties; however, in the event the Daic Parties' Accountants' Report reveals an error in the Reports of at least five percent in favor of the Daic Parties and either such report is accepted by Calypso or such an error of not less than five percent is confirmed by the Neutral Accountant, then the cost of both the Daic Parties' Accountant's Report and the audit of the Neutral Accountant shall be paid by Calypso (or any amounts already paid by the Daic Parties refunded by Calypso to the Daic Parties).

6. **Agreement with Attorneys.** Calypso and the Daic Parties will execute such documentation as is reasonably required to add Daic as a plaintiff in the T-Mobile Litigation and to authorize and direct counsel for the plaintiffs, Williams Kherkher Hart Boundas, L.L.P. (or any attorneys that assume representation of such plaintiffs) (the "Attorneys"), to facilitate the payments to the Daic Parties required hereunder out of any proceeds of the T-Mobile Litigation. In connection therewith, should there be a disagreement between Calypso and the Daic Parties with respect to distribution of proceeds from the T-Mobile Litigation resulting in the Attorneys unwillingness to distribute proceeds of the T-Mobile Litigation in accordance with the terms of this Agreement, the parties hereto will enter into an Escrow Agreement in the form attached hereto as **Exhibit "B"** providing for the escrow of disputed portion of the proceeds of the T-Mobile Litigation, with the escrow agent to be selected by mutual agreement of the parties hereto. If the parties hereto are unable to agree upon an escrow agent, the escrow agent shall be appointed by the Attorneys.

7. **General Provisions:** Nothing contained in this Agreement shall be construed as:

(a) Conferring to the Daic Parties any ownership in and to said ASNAP and Baxter Patents.

(b) Requiring an ownership interest in said ASNAP and Baxter Patents on the part of the Daic Parties as a condition for receiving the ASNAP/Baxter Payments set forth herein.

8. **Transaction Restriction.** As provided in the Settlement Agreement and reaffirmed hereby, Calypso shall not license or sell the ASNAP and Baxter Patents (or any portion thereof) to any Affiliate or other related party, or in any other transaction that is not at arms length between the parties, without the prior written consent of the Daic Parties.

9. **Notice.** Any notices or other communications required or permitted under, or otherwise in connection with this Patent Proceeds Assignment, shall be in writing and shall be deemed to have been duly given (i) when delivered in person; (ii) upon confirmation of receipt when transmitted by facsimile transmission (but only if followed by transmittal by national overnight courier or hand delivery on the next business day; (iii) three (3) days following deposit in a regularly

maintained receptacle for the United States mail, registered or certified, postage fully prepaid; or (iv) on the next business day if transmitted by national overnight courier, in each case to the address set forth below or at such other address as such party may have previously specified by notice provided in accordance herewith:

If to Calypso, to:

Calypso Wireless, Inc.
21 Waterway Avenue, Suite 300
The Woodlands, Texas 77380
Attention: Richard Pattin
Facsimile No. 281-362-2704

If to the Daic Parties, to:

Drago Daic
11 Lake Sterling Gate Drive
Spring, Texas 77379
Facsimile No. (281) 444-4727

and to:

Jimmy Williamson, P.C.
4310 Yoakum Boulevard
Houston, Texas 77006
Facsimile No. 713-223-0001

with a copy to:

Boyar & Miller, P.C.
4265 San Felipe, Suite 1200
Houston, Texas 77027
Attention: Gary W. Miller
Facsimile No.: (713) 552-1758

10. **Limitations on Restrictions.** Nothing contained in this Agreement shall be construed as restricting the rights of Calypso to make, have made, import, use, sell or ship goods covered under the ASNAP and Baxter Patents, or except as expressly provided herein, to restrict Calypso's rights to license or assign the ASNAP and Baxter Patents.

11. **Enforceability.** If any provision of this Agreement shall be held to be invalid or unenforceable for any reason, the remaining provisions shall continue to be valid and enforceable. If a court finds that any provision of this Agreement is invalid or unenforceable, but that by limiting such provision it would become valid and enforceable, then such provision shall be deemed to be written, construed, and enforced as so limited.

12. **Authority.** Each party represents and warrants to the other that it has the full right, power and authority to enter into this Agreement and to perform all of its obligations hereunder, and that its below-signed representative has authority to execute this Agreement on its behalf.

13. **No Waiver or Release of Amended Settlement Agreement.** By entering into this Assignment, the parties do not waive or release any provision of the Amended Settlement Agreement.

14. **Applicable Law.** It is agreed by the parties that this Agreement shall be construed according to the laws of the United States and of the State of Texas, U.S.A., and that any actions to enforce the terms hereof, or for breach hereof, shall be brought in either the federal or state courts of the State of Texas, without regard to principles of conflicts of laws..

15. **Entire Agreement.** This Agreement, the Amended Settlement Agreement, and the other documents described in the Amended Settlement Agreement set forth the entire agreement and understanding between the parties as to the subject matter hereof and merge all prior discussions between them, and none of the parties shall be bound by any conditions, definitions, warranties, understandings or representations with respect to such subject matter other than as expressly provided herein or as duly set forth on or subsequent to the date hereof in writing and signed by a proper and duly authorized officer or representative of the party to be bound thereby.

16. **No Partnership.** Nothing in this Agreement shall in anyway be interpreted as creating a partnership, joint venture or any other joint business endeavor between Calypso and the Daic Parties, or either of them.

17. **Headings.** The paragraph order and headings are for convenience only, and shall not be deemed to affect in any way the language, obligations or the provisions to which they refer.

[Signatures on Following Page]

IN WITNESS WHEREOF, this Patent Proceeds Assignment has been signed by the respective parties by their duly authorized officers or representatives as of the day and year first above written.

CALYPSO:

CALYPSO WIRELESS, INC.,
a Delaware corporation

By: 

Name: Richard S. Patton

Title: President

DAIC PARTIES:

„TIMMY WILLIAMSON, P.C.,
a Texas professional corporation

By: 

Cyndi M. Rusnak, Authorized Representative


DRAGO DAIC

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(1 of 1)

United States Patent
Leon6,680,923
January 20, 2004

Communication system and method

Abstract

A system and method for establishing communication with any one of a variety of different wireless communication devices including through the provision of a short range transceiver assembly so as to provide data communication from a sender to the wireless communication device either over the Internet, utilizing an Internet access facility, such as a computer, or alternatively using an over-the-air network; compatible with the communication device. The wireless communication device is structured to operate on either of at least two independent frequencies for communication with the computer or with the over-the-air network, dependent on predetermined parameters including the acceptance of a unique identifier or code and/or the positioning of the wireless communication device, within a predetermined vicinity range relative to the computer. An auto switching capability establishes data communication with the computer or with the over-the-air network, dependent on whether the identification and vicinity parameters have been met.

Inventors: Leon; Robert (Miami, FL)

Assignee: Calypso Wireless, Inc. (Miami, FL)

Appl. No.: 577812

Filed: May 23, 2000

Current U.S. Class:

370/328; 370/352

Intern'l Class:

H04L 012/64

Field of Search:

370/328,329,330,338,345,349,352,353,354,355,356,343,395.2,395.3,395.52

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Primary Examiner: Yao; Kwang Bin
 Attorney, Agent or Firm: Malloy & Malloy, P.A.

Claims

What is claimed is:

1. A hybrid communication system for wireless data communication said system comprising:
 - a) a wireless communication device including a unique identifier and capable of conducting data communication through an over-the-air network,
 - b) a computer configured for computerized network access,
 - c) a transceiver assembly operative on a short range communication standard and structured to interconnect said wireless communication device with a computer facility to establish data communication therewith,
 - d) said transceiver assembly including a first transceiver connected to said computer and at least a second transceiver connected to said wireless communication device and an auto-switching capability responsive to pre-determined parameters,
 - e) said auto-switching capability being determinative of data communication with said wireless communication device either over the computerized network through said computer facility or by the over-the-air network dependent on the establishment of said redetermined parameters, and
 - f) at least one of said predetermined parameters comprising a pre-established vicinity range.
2. A system as recited in claim 1 wherein said transceiver assembly is operative on a short range frequency.
3. A system as recited in claim 1 wherein said auto-switching capability establishes data communication with said wireless communication device outside said pre-established vicinity range.
4. A system as recited in claim 3 wherein said transceiver assembly automatically establishes communicative recognition between said computer and said wireless communication device within said pre-established vicinity range.
5. A system as recited in claim 4 wherein said predetermined parameters further comprise recognition compliance of said wireless communication device based at least partially on said unique identifier.

6. A hybrid communication system for data communication, said system comprising:

- a) a plurality of wireless communication devices each including a unique identifier and capable of establishing messaging communication by an over-the-air network,
- b) a plurality of Internet access facilities each capable of recognizing different ones of said wireless communication devices by means of said unique identifiers,
- c) a transceiver assembly comprising a plurality of first transceivers each connected to a different one of said Internet access devices and a plurality of second transceivers each connected to a different one of said plurality of wireless communication devices,
- d) said transceiver assembly including an auto-switching switching capability responsive to said predetermined parameters,
- e) said predetermine parameters comprising acceptance of said unique identifiers and a pre-established vicinity range existing between any one of said wireless communication devices and any one of said plurality of Internet access devices, and
- f) said transceiver assembly and said auto-switching capability determinative of data communication with said wireless communication device, either by said over-the-air network or by Internet access, dependent on the establishment of said predetermined parameters.

7. A system as recited in claim 6

wherein said transceiver assembly includes a scanner capability.

8. A system as recited in claim 7 wherein said scanner capability is structured to provide continuous searching by at least one of said first plurality of transceivers or said second plurality of transceivers for the other and establish communication there between, when a corresponding one of said plurality of wireless communication devices is within said pre-established vicinity range of said plurality of Internet access facilities.

9. A system as recited as recited in claim 7 further comprising a configuration facility selectively operative to regulate transmission of data to any one of said plurality of wireless communication devices by means of said over-the-air network.

10. A system as recited in claim 9 wherein said over-the-air network is responsive to selectively store all data intended for transmission to any one of said plurality of wireless communication devices and/or transmit data thereto within a selectable time window.

11. A method of hybrid communication utilizing a multi-frequency wireless communication device and an Internet access facility, said method comprising:

- a) establishing communication between the Internet access facility and the wireless communication device when both are located within a pre-establish vicinity range,
- b) communicating data to the wireless communication device over the Internet through the Internet access facility,

- c) alternatively establishing data communication with the wireless communication device by a compatible over-the-air network when the Internet access facility and the wireless communication device are disposed outside of the pre-established vicinity range, and
- d) automatically switching messaging communication with said wireless communication device between the Internet and the over-the-air network dependent at least on said wireless communication device being inside or outside said pre-established vicinity range relative to the Internet access facility.
- 12. A method as recited in claim 11 comprising establishing at least two-way messaging with the wireless communication device over the Internet through the Internet access facility.
- 13. A method as recited in claim 12 comprising establishing at least one-way messaging with said wireless communication device by the over-the-air network.
- 14. A method as recited in claim 11 comprising conducting a scan by at least one of the wireless communication device or Internet access facility for the other to establish communication therebetween when both are within the pre-established vicinity range.
- 15. A method as recited in claim 11 comprising configuring either the wireless communication device or the Internet access facility to selectively regulate time and/or content of messaging data to the wireless communication device.
- 16. A hybrid communication system for wireless data communication said system comprising:
 - a) a wireless communication device including a unique identifier and capable of conducting data communication through an over-the-air network,
 - b) a computer configured for computerized network access,
 - c) a transceiver assembly operative on a short range communication standard and structured to interconnect said wireless communication device and a computer facility to establish data communication therewith,
 - d) said transceiver assembly including a first transceiver connected to said computer and at least a second transceiver connected to said wireless communication device and an auto-switching capability responsive to pre-determined parameters,
 - e) said auto-switching capability being determinative of data communication with said wireless communication device either over the computerized network through said computer facility or by the over-the-air network dependent on the establishment of said predetermined parameters,
 - f) at least one of said predetermined parameters comprising a pre-established vicinity range, and
 - g) said wireless communication device comprising a pager assembly including multi-line communication capabilities operable on at least two independent frequency ranges.
- 17. A system as recited in claim 16 wherein said first and second transceivers are operative to at least establish data communication between said computer facility and said pager assembly within said pre-established vicinity range.
- 18. A system as recited in claim 17, wherein said pager assembly is operative to establish data communication by said over-the-air network outside of said pre-established vicinity range.

19. A system as recited in claim 18 wherein said auto-switching capability is responsive to said pre-established vicinity range to automatically establish at least two way messaging between said pager assembly and said computer facility when said pager assembly is within pre-established said vicinity range.

20. A system as recited in claim 18 wherein said auto-switching capability is responsive to said pre-established vicinity range to automatically establish at least one-way messaging with said over-the-air network when said pager assembly is outside said vicinity range.

21. A system as recited in claim 20 wherein said auto-switching switching capability is responsive to said pre-established vicinity range to automatically establish at least two-way messaging between said pager assembly and said computer when said pager assembly is within said vicinity range.

22. A system as recited in claim 21, wherein said auto switching capability is structured to automatically switch said pager assembly from data communication through said over-the-air network, when said pager assembly is outside said vicinity range to data communication with said computer facility, when said pager assembly is within said vicinity range.

23. A system as recited in claim 22 wherein said pager assembly comprises an alphanumeric pager.

24. A hybrid communication system for wireless data communication said system comprising:

a) a wireless communication device including a unique identifier and capable of conducting data communication through an over-the-air network,

b) a computer configured for computerized network access,

c) a transceiver assembly operative on a short range communication standard and structured to interconnect said wireless communication device a computer facility to establish data communication therewith,

d) said transceiver assembly including a first transceiver connected to said computer and at least a second transceiver connected to said wireless communication device and an auto-switching capability responsive to pre-determined parameters,

e) said auto-switching capability being determinative of data communication with said wireless communication device either over the computerized network through said computer facility or by the over-the-air network dependent on the establishment of said predetermined parameters,

f) at least one of said predetermined parameters comprising a pre-established vicinity range, and

g) said transceiver assembly including a scanning capability, said scanning capability structured to provide continuous searching by at least one of said first or second transceivers for the other of said transceivers and establish communication there between when said wireless communication device is within said pre-established vicinity range.

25. A system as recited in claim 24 wherein said pre-established vicinity range defines at least one of said predetermined parameters.

26. A system as recited in claim 25 wherein said pre-established vicinity range comprises at least 100 meters.

27. A hybrid communication system for wireless data communication said system comprising:

- a) a wireless communication device including a unique identifier and capable of conducting data communication through an over-the-air network,
- b) a computer configured for computerized network access,
- c) a transceiver assembly operative on a short range communication standard structured to interconnect said wireless communication device a computer facility to establish data communication therewith,
- d) said transceiver assembly including a first transceiver connected to said computer and at least a second transceiver connected to said wireless communication device and an auto-switching capability responsive to pre-determined parameters,
- e) said auto-switching capability being determinative of data communication with said wireless communication device either over the computerized network through said computer facility or by the over-the-air network dependent on the establishment of said predetermined parameters,
- f) at least one of said predetermined parameters comprising a preestablished vicinity range, and
- g) said transceiver assembly including selective configuration capability responsive to said first and second transceivers being located within said pre-established vicinity range; said system structured to instruct said over the air network to regulate transmission of data to said wireless communication device.

28. A system as recited in claim 27 wherein said over-the-air network is responsive to selective storage of all data to said wireless communication device and/or transmit data to said wireless communication device within a selectable time window.

29. A system as recited in claim 28 wherein modification of said selective configuration capability is performed through said wireless communication device.

30. A system as recited in claim 29 wherein modification of said selective configuration capability is performed through said computer.

Description

BACKGROUND OF THE INVENTION

1. Field of the Invention

This invention is directed to a system and method of establishing wireless communication either over the Internet, through an Internet access facility, such as a computer, or alternatively by a compatible over-the-air network, dependent on whether the wireless communication device and the Internet access facility are relatively located inside or outside a pre-established vicinity range. The system includes auto-switching capabilities for determining the route of communication with the wireless communication device dependent, at least in part, on predetermined parameters, which may include the pre-established vicinity range and recognition of a unique identifier associated with at least the wireless communication device.

2. Description of the Related Art

At the present time, it is well recognized that the wireless communication industry is enjoying a period of dramatic growth. Although the number of subscribers is still relatively low, as compared to the maximum capacity available, carriers are offering networks with excellent coverage, lower prices and an increasing variety of additional options. As such, there is a recognized limit to the traditional wireless communications capabilities. As such, even with the recent advancements in wireless communication technology there exists even more opportunity to provide subscribers with vastly improved wireless communication standards.

Additionally, it is recognized that with the increasing popularity of local or global computerized networks, individuals are relying more and more heavily on alternate means of communication and information gathering. Still, however, each of these communications mediums despite their usefulness, are maintained generally independent from one another, requiring a user to utilize the specified technological medium applicable. Moreover, as the technologies are maintained generally independent from one another, they do not take full advantage of integration possibilities available due to advances in technology. For example, one increasingly popular medium for wireless communication relates to the use of "Bluetooth" technology. Such technology allows short range, wireless communication between devices, thereby providing more versatility and eliminating many cabling limitations/requirements that may limit expansion. Still, however, despite the advantageous nature of such wireless communications protocols, the use of such technology is currently limited to traditional communicative links, replacing a more traditional connectivity solution. As such, the art has failed to truly explore the cross-over potentials available through the expansion of such technology.

Accordingly there is a substantial need in the art for a system and method which enables the integration or cross-over of various generally related technologies so as to substantially increase the versatility and productivity of the communications services offered. Specifically, as will be described within the context of the present invention and has yet been un-addressed in the art, such improved technology could include a hybrid communication system which will operate using standard flex paging protocol in combination with Bluetooth or similar technology for short range messaging. Such an improved hybrid communication system should have the ability to automatically switch to messaging communication with the wireless communication device using, for example, an Internet access facility, such as a personal computer (PC), when two transceivers incorporating the Bluetooth or equivalent technology are within the pre-established vicinity range. Alternatively, such an improved system as provided by the present invention could automatically switch to over-the-air network messaging with the wireless communication device, when outside the pre-established vicinity range, representing substantial savings for both the carriers and the users. In particular, carriers could save money by freeing up limited band width and thereby have the capacity to subscribe more users, while not having to upgrade current infrastructure hardware. Users on the other hand could save money because they would have the ability to send and receive large messages and e-mail wirelessly, when within the aforementioned pre-established vicinity range, at a cost no more than the cost of their current network connection, plus current one-way messaging service.

SUMMARY OF THE INVENTION

This invention is directed to a system and method of hybrid communication which provides data communication including, but not limited to, voice, video and/or alphanumeric messaging, either over the computerized network, such as the Internet, using an appropriate access facility, such as a personal computer, or alternatively by means of an over-the-air network such as, but not limited to, a cellular/paging network satellite communication and other applicable types of communication networks. The wireless communication device, as set forth above, may include a pager, cellular telephone, personal digital assistant (PDA) or other applicable wireless communication devices structured and designed to perform data communication.

The system and method of the present invention incorporates a transceiver assembly operative on a recognized-spread spectrum standard capable of short range communication such as "Bluetooth technology". As is recognized in the communication field, Bluetooth technology incorporates 2.4 GHz wireless data

solution utilizing spread spectrum techniques as set forth in detail above. However, as utilized hereinafter the term "transceiver assembly" refers to any type of short range technology operable in the fashion of "Bluetooth technology" but not limited thereto.

More specifically, the hybrid communication system and method of the present invention comprises the utilization of one or more wireless communication devices, of the type set forth above, each having a transceiver connected thereto and operable on a short range radio frequency (RF), wherein each of the plurality of wireless communication devices include a unique identifier or code capable of being recognized by another compatible transceiver, which also defines a part of the aforementioned transceiver assembly. More specifically, a first transceiver designed to function in accordance with Bluetooth or equivalent technology, is connected to an Internet access facility such as, but not limited to, a computer facility or PC. A second transceiver is connected to the wireless communication device. Obviously, the system and method of the present invention contemplates the provision of a plurality of network access facilities or computers and a plurality of wireless communication devices, wherein, for purposes of clarity, each of the aforementioned plurality of computers may be connected to a first transceiver and each of the aforementioned plurality of wireless communication devices may be connected with a second transceiver. The unique identifiers associated with each of the plurality of wireless communication devices are unique unto themselves and serve as an identifying code to any one of the appropriately programed or configured first transceivers associated with different ones of the plurality of computers. Recognition and the establishment of messaging communication may be dependent, at least in part, on at least one predetermined parameter. One such predetermined parameter may be a vicinity range, wherein the first and second transceivers, in order to recognize one another must be within a pre-established vicinity. Currently such a pre-established vicinity range may be generally about 100 meters. However, it is emphasized that the vicinity range is not limited to 100 meters and can vary greatly based at least in part on technological advancements and the specific applications of the present invention. Another possible predetermined parameter may be the unique identifier itself, wherein communication between any one of the plurality of network access facilities or computers must identify and accept the unique identifier or code of the wireless communication device as well as be within the predetermined vicinity range. As set forth above, the vicinity range may be pre-established and determined based on current technological standards and may vary greatly.

The communication system and method of the present invention also incorporates auto-switching capabilities, wherein data communication is automatically established with the access facility when at least one, or both of the aforementioned predetermined parameters (vicinity range and identification) have been established and wherein a first transceiver associated with the Internet access facility and the second transceiver associated with the wireless communication device are configured to recognize and accept one another to establish such communication. Alternatively, the auto-switching capabilities of the present invention establishes data communication by means of a compatible over-the-air network, such as an appropriate paging/cellular network, satellite communication, etc. when either or both of the predetermined parameters between a given access facility and a corresponding wireless communication device are not met. More particularly and also by way of example only, the wireless communication device, when in the acceptable vicinity range of a computer, wherein both incorporate a first and second transceiver as set forth above, can perform data communication over the network, such as the Internet, by means of the computer or other access facility. However, when the wireless communication device is disposed beyond the established vicinity range, the auto-switching capabilities will automatically provide for data communication with the wireless communication device by means of the over-the-air network, as set forth above. The wireless communication device associated with the system and method of the present invention is therefore capable of being operative over at least two distinct frequency ranges, dependent on data communication being established with the computer or Internet access facility or a paging/cellular infrastructure, which may define a compatible over-the-air network.

Other features of the system and method of the present invention comprise the transceiver assembly, whether

incorporating Bluetooth technology or its equivalent, including a scanning capability wherein scanning for recognition, preferably of the unique identifier associated with each of the transceivers is conducted and when the aforementioned predetermined parameters, including for example an acceptable vicinity range of 100 meters or other pre-established distance, is met, mutual recognition of the first and second transceivers is accomplished. Such scanning may therefore be referred to as a "find-me-follow-me" procedure which may occur on a substantially continuous basis.

In addition to the above, the communication system and method of the present invention also may include configuration capabilities. This allows messages which would be normally communicated by means of the over-the-air network to be "stored" until communication with a particular one of the plurality of wireless communication devices is established with an appropriate computer incorporating the transceiver assembly technology of the type set forth above. Then, communication is established between the computer and the particular wireless communication device to which the messages were originally sent. Alternatively, the configuration capabilities may allow the selective configuring of the system, such that any stored messages would be transmitted only during a pre-selected time window. Such configuring of course may assume a variety of other data regulating configurations.

One advantage of the hybrid communication system and method of the present invention which may serve as an incentive is the concept of "revenue sharing". More specifically, the system provides the capability of the owner of a computer to decide which wireless communication devices may have access to the network, utilizing his or her computer, assuming that both the computer and any one of the plurality of wireless communication devices are associated with the same piconet of the Bluetooth or equivalent transceiver assembly technology. The system may include security software allowing only wireless devices with "permission" to be able to access the computer's network. As the incentive to open access to others, including strangers, revenue sharing would involve the service provider system giving credit, in the form of money or other incentives, to the owner of the computer which allows access to "stranger" wireless communication devices.

These and other features and advantages of the present invention will become more clear when the drawings as well as the detailed description are taken into consideration.

BRIEF DESCRIPTION OF THE DRAWINGS

For a fuller understanding of the nature of the present invention, reference should be had to the following detailed description taken in connection with the accompanying drawings in which:

FIG. 1 is a schematic representation of the hybrid communication system and method of the present invention; and

FIG. 2 is a schematic representation in flow chart form of certain operative steps which are representative of and at least partially define the system and method of the present invention.

Like reference numerals refer to like parts throughout the several views of the drawings.

DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENT

The present invention relates to a system and method of hybrid communication wherein communication is established with any one of a plurality of wireless communication devices, generally indicated as 10 in FIG. 1. Such wireless communication devices may of course include a pager assembly, cellular telephone, PDA, etc. More importantly, messaging communication can be established with any of the plurality of wireless communication devices 10 either by means of a global or local computerized network, such as for example,

the Internet 12 through an Internet service provider 15 including one or more servers 16, or alternatively by a compatible over-the-air network, generally indicated as 14, also including appropriate servers 18. The over-the-air network can be defined by any compatible paging and/or cellular infrastructure, satellite communication 17 or other appropriate communication facilities, dependent on the type of wireless communication device 10 being utilized and a variety of other related factors.

In one preferred embodiment of the present invention, a transceiver assembly is utilized to provide possible short range wireless communication. By way of example, this transceiver assembly may be in the form of or incorporate Bluetooth technology. Specifically, Bluetooth technology is a used for short range communication between various devices and is the official name of a specification that has become one of the fastest growing technology standards in recent times. Simply put, Bluetooth is a specification for a global wireless technology standard that allows devices to communicate with each other using a secure radio frequency. As such, the use of a Bluetooth transceiver enables at least short range communication without the burden of cables, but at a high rate of data transmission, without line-of-site requirements, typically necessary for infrared technology. In such an embodiment, the transceiver assembly may include at least one small, low power radio transceiver mounted on a chip that communicates with other Bluetooth-enabled device. Because it operates on radio frequency (RF) Bluetooth eliminates the need for cables and can connect on a one-to-one or on a one-to-many basis. In addition, at least the illustrated Bluetooth transceiver has the enhanced versatility of supporting voice and video data as well as other data communications, thereby allowing it to be extended into hands-free voice communications. In an embodiment wherein the Bluetooth technology is integrated, it may use a 2.4 GHz range, spread spectrum standard radio band, which is un-licensed and available almost worldwide. In addition, the transceiver assembly is preferably capable of transmitting through solid, non-metal objects, enjoying an operative range of generally from 10 cm to 10 m, which is typically extended to a vicinity range of about 100 meters, by increasing the transmitting power, and is omni directional, supporting both isochronous and asynchronous services.

Also in the illustrated embodiment incorporating the Bluetooth technology, such a transceiver assembly enables a connection and communication wirelessly via short-range, ad hoc networks and can normally support up to eight peripheral devices in a "piconet", which may be defined as two or more Bluetooth or equivalent technology units sharing a common channel. Furthermore, the transceiver assembly may be structured to provide synchronous voice channels which allows the assembly to reserve bandwidth for carrying digital voice data. As such, the system can support three or more simultaneous, full duplex voice conversations within a given piconet.

Also in this embodiment wherein a Bluetooth or similar transceiver is utilized, authentication and encryption is preferably provided in its baseband protocol. For example, the authentication may rely on a challenge/response protocol utilizing a unique identifier (password, PIN, etc.). Two devices communicating with one another within the appropriate or pre-established vicinity range must contain or have recognition of the same unique identifier. This protocol allows each device to authenticate the other, automatically. After the devices are authenticated it is possible to encrypt transmission for added security.

Additionally, it is noted that the Bluetooth and equivalent transceiver assembly technology integrated into the present invention may be designed to carry voice, data and video information at approximately, but not limited to, 760 Kbps. While this speed of data transmission is not favorably compared to present day wire speed, it is equal to or substantially better than the speed achieved by current digital subscriber lines (DSL) or cable modem services. At this speed, the transceiver assembly can handle video or full stereo sound, and can supply high resolution images at a somewhat lower frame rate while simultaneously carrying voice and data streams.

Of course, despite the preceding, it is emphasized that the system and method of the present invention utilizes the term "transceiver assembly", which in the context of the present invention, is meant to include the

aforementioned Bluetooth technology or any other transceiver technology utilizing an applicable frequency and/or short range communication standard which may or may not have all of the functional characteristics of Bluetooth. As such, the system and method of communication of the present invention is not meant to be limited to Bluetooth technology, and the subsequent specific description utilization and explanation of certain characteristics previously recited as being characteristic of a Bluetooth transceiver are not intended to be limited to such technology.

Accordingly, the transceiver assembly of the present invention comprises at least one transceiver 19, preferably in the form of a transceiver chip operative on radio frequencies (RF), wherein such a first transceiver 19 is connected to one or a plurality of network access assemblies, such as a PC or like computer facility generally indicated as 20. The transceiver assembly of the system and method of the present invention also includes at least a second transceiver 21 also in the form of a radio chip connected to or incorporated within each of the plurality of wireless communication devices 10. Each of the wireless communication devices 10 may also include a unique identifier or "code" to facilitate recognition between the first and second transceiver chips 19 and 21. As explained in greater detail hereinafter, the unique identifier may define one of a plurality of predetermined parameters, more specifically referred to as an identification parameter, utilized to establish messaging communication with appropriate ones of a plurality of wireless communication devices 10. When recognized each of the wireless communication devices 10 becomes part of a piconet, generally indicated as 24, which may exist in a home, office, or any other area incorporating one or more Internet access facilities or computers 20. The piconet 24 may be defined by the operative features of the aforementioned transceiver assembly. At least one other predetermined parameter which may be established, based at least in part on the short range frequency standard on which the transceiver assembly operates, is a pre-established vicinity range. More specifically, the pre-established vicinity range may be currently defined as about 100 meters. However, it is emphasized that the actual vicinity range incorporated in the present invention may vary greatly and is not limited to the indicated 100 meters. The pre-established vicinity range therefore allows data communication, over the computerized network, such as the Internet 12, with the wireless communication device 10, by means of the computer 20, provided that the first transceiver 19 associated with the computer 20 and the second transceiver 21 associated with the wireless communication device 10, are compatible or configured to recognize one another. In order to accomplish this identification parameter, the maximum distance between the wireless communication device 10 and the computer 20 must be within the pre-established vicinity range, which of course may vary, as described above.

Each of the plurality of wireless communication devices are multi-line, to the extent that they are capable of operating on at least two, but possibly more, distinct frequencies. Accordingly, once the communication device 10 wanders outside of the pre-established vicinity range of the piconet 24 an auto-switching capability associated with the system and method of the present invention preferably, but not necessarily, automatically establishes communication between the wireless communication device 10 and the over-the-air network 14. As set forth above, the over-the-air network may be defined by appropriate cellular/pager infrastructure, including server 18 or other communication networks such as, but not limited to, satellite communication 17 and others.

The communication system and method of the present invention also incorporates scanner capabilities, which is more specifically incorporated within the aforementioned transceiver assembly. Operative features of the scanner capabilities of the present invention provide for preferably continuous scanning, wherein the first and second transceivers 19 and 21 are continuously searching to establish messaging communication between compatibly configured computers 20 and wireless communication devices 10. The scanning capabilities are completed when, for example, one of the plurality of wireless communication devices 10 wanders within the pre-established vicinity range of the piconet 24 and includes a unique identifier or code which is recognizable by the first transceiver 19 associated with the computer 20. Upon recognition and when all the pre-determined parameters have been met, messaging communication between the computer 20 and the one or more wireless communication devices 10 is established. The communication system and method of the present invention

also includes selective configuration capabilities which allows a user to configure his account to regulate data transmission to a particular wireless communication device. Such selective configuration can be accomplished via a particular communication device 10 or alternatively through the website of the Internet service provider 15 and/or the individual servers 16, at least when an Internet type computerized network is utilized.

Turning to FIG. 2, and by way of example only, a method of operation and utilization of the communication system of the present invention is illustrated. More specifically, in operation anyone of the plurality of wireless communication devices 10 is activated as at 30 and, through operation of the continuous scanning capabilities, as set forth above, a first and second transceiver 19 and 21, associated with the transceiver assembly of the present invention, provide for a "find-me-follow-me" procedure in an attempt to recognize one another and establish messaging communication, as at 32. If the aforementioned pre-determine parameters of identification and vicinity range are not met the auto-switching capabilities of the present invention are automatically operative to find an appropriate, compatible over-the-air network such, as a cellular/paging, satellite or other appropriate network, as at 34. However, assuming that the wireless communication device 10 locates an Internet access facility or computer as at 36, it is next determined, through operative features of the transceiver assembly and combined features of the scanning assembly, whether the computer 20 is configured to recognize and communicate with the wireless communication device 10, as indicated as 38. The configuring of both the computer 20 and the wireless communication device 10 is accomplished by the appropriate programming of the first and second transceivers 19 and 21 defining the aforementioned transceiver assembly. Next, assuming compatible configuration between the computer 20 and the wireless communication device 10 as indicated at 40, it is determined whether the computer 20 is configured to allow the particular wireless communication device 10 to access the Internet 12 as at 42. If the computer 20 is not so configured, then the scan capability is operative to continue searching for a computer which is compatible to the extent of allowing data communication to be established with the particular wireless communication device. However, if no computer can be located, the auto-switching capability is again operative to transfer data communication to an appropriate or compatible over-the-air network 14, as at 44. However, if computer 20 is configured to access the computerized network 12, data communication is thereby established as at 46, wherein voice, video, alphanumeric or other data may be sent or received by virtue of the piconet 24, over the computerized network 12, utilizing the network service provider 15. If the connection is lost as at 48, the auto-switching capability returns to the scanning capabilities as at 49, 44 to continuously search for a compatible Internet access facility or computer 20 or alternatively switches to communication with an over-the-air network, as at 34.

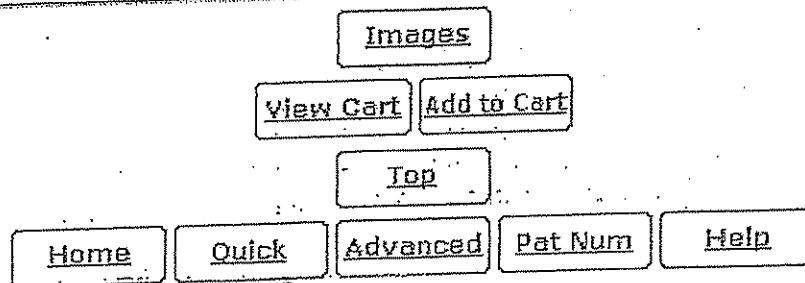
Alternatively, and as explained above, if a predetermined parameter of establishing data communication within the piconet 24, between computer 20 and the wireless communication device 10, is not established, such as by the wireless communication 10 being located outside the pre-established vicinity range, a search is made for a compatible over-the-air network 14, such as, but not limited to a cellular, or paging network infrastructure and/or server 18 or other appropriate over-the-air network, such as satellite communication. If one is not found, as at 52, the auto-switching capabilities, as well as the continuous scanning facility, are re-activated, as at 32 and the procedure begins again. Alternatively, assuming that the wireless communication devices are properly configured to establish communication by means of the over-the-air network 14, the decision as at 54 is made whether current data communication may be established. If not, as at 56, the auto-switching and scanning capabilities of the system are re-activated as set forth above. Assuming that current communication is allowed as at 55 data communication may be conducted, as at 58.

The system and method of the present invention may further comprise selective configuration capabilities, as generally set forth above and as indicated as 60 in FIG. 2. This means that the receipt of data by means of the over-the-air network 14 or the computerized network 12, through the computer 20 may be pre-configured by the user. More specifically, the user may configure a particular account so as to regulate data communication with the particular wireless communication device 10, in terms of how and when such data may be received

on either the computer 20 or the over-the-air network 14. By way of example only, the user 10 may selectively configure the account, utilizing either a particular wireless communication device 10 or alternatively the website of the Internet service provider 15, to establish communication, utilizing the transceiver assembly to only accomplish compatible recognition between specific computers 20 and certain wireless communication devices 10. Alternatively, the user can control or regulate what type of data and/or at what time certain communications can be sent by the over-the-air network 14 or over the Internet 12.

Since many modifications, variations and changes in detail can be made to the described preferred embodiment of the invention, it is intended that all matters in the foregoing description and shown in the accompanying drawings be interpreted as illustrative and not in a limiting sense. Thus, the scope of the invention should be determined by the appended claims and their legal equivalents.

* * * * *



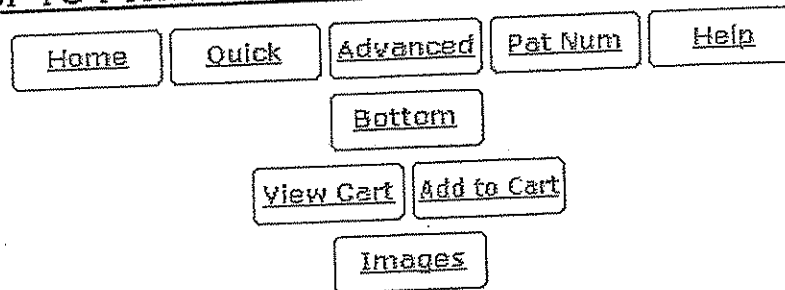
The ASnap Patent

U.S. PATENT

US Patent No.	US Appl No.	Filing Date	Issue Date	Title
5680923	09/577,812	05-23-2000	01-20-2004	COMMUNICATION SYSTEM AND METHOD

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Foreign Patent or Publication No.	Appl. No.	Pub. Date	Country	Title
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CN1335701A	CN2001000116237	2002-02-13	CN	Communication system and method
CA2447965AA	CA2001002447965	2001-11-29	CA	HYBRID COMMUNICATION SYSTEM FOR WIRELESS DATA COMMUNICATION
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USPTO PATENT FULL-TEXT AND IMAGE DATABASE

(1 of 1)

United States Patent
Baxter, Jr.

7,031,439
April 18, 2006

audio file transmission method

Abstract

computer implemented method of transmitting electronic voice messages including the steps of establishing a caller entity associated with a first telephone connection, recording a first audio clip from the first telephone connection, establishing an email target string, encapsulating the first audio clip, the caller identity and the email target string into a first email attachment, transmitting the first email attachment to a first email account associated with the email target string, broadcasting the first audio clip to a second telephone connection, prompting the second telephone connection for a reply recording, responsive to a record signal, recording a second audio clip from the second telephone connection, encapsulating the second audio clip and the caller identity into a second email attachment, and transmitting the second email attachment to a second email account associated with the caller identity.

Inventors: Baxter, Jr.; John Francis (Marco Island, FL)

Appl. No.: 10/604,618

Filed: August 5, 2003

Related U.S. Patent Documents

<u>Application Number</u>	<u>Filing Date</u>	<u>Patent Number</u>	<u>Issue Date</u>
09682431	Aug., 2001	6765996	
09517415	May., 2002	6385306	

Current U.S. Class:

Current International Class:

Field of Search:

379/88.14 ; 379/88.13; 379/88.17; 379/88.21; 709/206
H04M 1/64 (20060101)

379/88.14,88.16-88.25,93.01,93.12,93.24,93.26-
93.28,114.4,114.1,114.13,142.04,142.05,142.06,335.01-335.1,88.01-
88.04 370/351-356 709/201,203,206 704/270,270.1,275

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September 1996

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United States Patent: 7031439

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Primary Examiner: Foster; Roland G.
 Attorney, Agent or Firm: Smith & Hopen, P.A. Hopen; Anton J.

Parent Case Text

RELATED APPLICATIONS

This disclosure is a divisional application claiming the benefit of the filing date of pending U.S. patent application entitled: "Audio File Transmission Method," by the same inventor, filed on Aug. 31, 2001 now U.S. Pat. No. 6,765,996, bearing Ser. No. 09/682,431, which is a Continuation-in-Part to U.S. patent application Ser. No. 09/517,415 that was filed Mar. 2, 2000 and issued as U.S. Pat. No. 6,385,306 on May 7, 2002.

Claims

What is claimed is:

A computer implemented method of transmitting electronic voice messages comprising the steps of: establishing a voice command zone; establishing an array of voice command instructions relating to the operation of an electronic message system; receiving the voice command instructions by a microphone input means; responsive to a voice command establishing a caller identity associated with a first telephone connection; recording a first audio clip from the first telephone connection; establishing an email target string; encapsulating the first audio clip, the caller identity and the email target string into a first email attachment; transmitting the first email attachment to a first email account associated with the email target string; broadcasting the first audio clip to a second telephone connection; prompting the second telephone connection for a reply recording; responsive to a record signal, recording a second audio clip from the second telephone connection; encapsulating the second audio clip and the caller identity into a second email attachment; transmitting the second email attachment to a second email account associated with the caller identity.

The method of claim 1 further comprising the step of establishing a play command that broadcasts audio files attached email messages through a speaker means.

The method of claim 1 further comprising the step of establishing a text-to-voice synthesizer, synthesizing text messages into speech, and establishing a play command that broadcasts the synthesized speech through a speaker means.

The method of claim 1 wherein the voice command zone is established in an automobile passenger compartment.

The method of claim 1 wherein the voice command zone is established in a human-inhabitable dwelling.

The method of claim 1 wherein the microphone input means is omni-directional.

Description

BACKGROUND OF INVENTION

Field of Invention

The present invention relates generally to a method of transmitting audio messages over a network, and more particularly, a method of emulating voice messaging using electronic mail technology.

Background of the Invention

Electronic mail ("email") has proliferated as a common method of communication. Initial communications consisted of ASCII (American Standard Code for Information Interchange) text. In an ASCII file, each alphabetic, numeric, or special character is represented with a 7-bit binary number (a string of seven 0s or 1s). 128 possible characters are defined. However, basic ASCII text email messages have progressed to include graphics, audio and even video. Graphic images, digital audio files and digital video all require an encoding and decoding process when transmitted over the Internet. A user wishing to encode a voice message and send the message to a preselected email address had to accomplish several steps and have certain hardware and software equipment. The user would typically record their voice message on a computer using a sound card attached or integrated into the motherboard of a computer.

The voice message is a sequence of analog signals that are converted to digital signals by the audio card, using a microchip called an analog-to-digital converter (ADC). When sound is played, the digital signals are sent to the speakers where they are converted back to analog signals that generate varied sound. Audio files are usually compressed for storage or faster transmission. Audio files can be sent in short stand-alone segments—for example, as files in the WAV format. In order for users to receive sound in real-time for a multimedia effect, listening to music, or in order to take part in an audio or video conference, sound must be delivered as streaming sound. More advanced audio cards support wavefiles, or precaptured tables of sound. The most popular audio file format today is MP3 (MPEG-1 Audio Layer-3).

Since these digital audio files reside on the hard drive of the user, the user would attach the file to an email sent to a selected recipient. When the file is attached, it might be transmitted in a standardized protocol such as Multi-Purpose Internet Mail Extensions (herein "MIME"). MIME is an extension of the original Internet e-mail protocol that lets people use the protocol to exchange different kinds of data files on the Internet: audio, video, images, application programs, and other kinds, as well as the ASCII handled in the original protocol, the Simple Mail Transport Protocol (SMTP). In 1991, Jonathan Borenstein of Bellcore proposed to the Internet Engineering Task Force that SMTP be extended so that Internet (but mainly Web) clients and servers could recognize and handle other kinds of data than ASCII text. As a result, new file types were added to "mail" as a supported Internet Protocol file type.

Attempts have been made to develop unified messaging systems that link video, text, audio, document management and e-mail like into a single system. However, such attempts have not provided a means to enable voice messaging to maintain continuity throughout a thread, store outbound voice communications, and provide a reply function equivalent to the simplicity of email replies. Furthermore, many unified messaging applications require expensive proprietary equipment wherein typical SMTP email servers are inexpensive, well-developed and already employed by most medium or larger business entities.

United States Patent: 7031439

broadcast, the caller is then prompted for a reply recording. Responsive to a record signal, a second audio clip from the second telephone connection is then recorded. The second audio clip, the caller identity and the email target string are all encapsulated into a second email attached which is then transmitted to a second email account associated with the caller identity.

In order to establish a thread of messages having a common topic, the first audio clip is appended to the second audio clip. The second audio clip might be placed after the first audio clip in order to preserve the chronological order of the thread, or the second audio clip might be placed before the first audio clip in order to avoid the need to hear previously transmitted audio data. It should be understood that the reply loops may continue on far beyond one initiating email and a single reply. It is also anticipated that carbon copies, blind carbon copies and forwarded be enabled as they are standard SMTP functions.

It is preferred that the recording time is encapsulated into the email attachments with a date/time stamp. This may be achieved by encoding the alphanumeric characters of the date and time into the text body of the email message. Alternatively, the date and time may be synthesized as speech and appended to the audio clip.

Providing system security includes the steps of establishing the caller identity associated with the first telephone connection by receiving a password entry from the first telephone connection and associating the password entry against a preexisting caller account. Receiving the password entry may include interpreting at least one DTMF signal responsive to the keying of buttons on a touch-tone telephone. Alternatively, the process may include the step of receiving the password entry by interpreting at least one alphanumeric character as spoken into the telephone. In another embodiment, the invention utilizes biometrics by receiving a predetermined call phrase, reducing the call phrase to a voice pattern, and associating the voice pattern against a preexisting caller account by speech identification means such as described by U.S. Pat. No. 5,608,784 of which specification is incorporated by reference.

The email target string may be established by the steps of interpreting a plurality of DTMF signals responsive to the keying of buttons on a touch-tone telephone. Alternatively, the step may include receiving a plurality of individually spoken alphanumeric characters representative of the email target string and translating the spoken characters to their binary equivalent by a speech identification means.

With sensitive communications, it is preferred that the email attachment be encrypted. As an added security measure, an addition step may be employed by establishing a hash of the first email attachment and storing the hash in a secure storage means.

Another embodiment of the invention includes the steps of establishing a first SMTP email address, the first SMTP email address having a distinct prefix address and a domain address. For example, in a common email address format such as 2224848@uspto.gov the prefix address would be "2224848" and the domain address would be "@uspto.gov." In the next step a primary telephone number is established. This number is preferably a toll-free number that is easily remembered with an alphabetic phrase correlated to the numerals of the number. For illustrative purposes, an example number might be "1-800-555-EMAIL." In the next step, an extension to the primary telephone number is established. The extension contains alphanumeric characters identical to the distinct prefix address. For example, the above-mentioned email address would have an extension of 2224848. The full dialing string to the account would be "1-800-555-EMAIL, ext. 2224848." A text-to-speech synthesizer established which is responsive to a call to the primary telephone number and extension wherein email messages sent to the first SMTP address are synthesized into computer-generated speech. A voice digitizing means is then established wherein reply messages spoken to the primary telephone number and extension are converted into an audio computer file and transmitted to a second SMTP address as an email attachment.

Callers that wish to retrieve their email from a regular telephone may be identified by businesses as a potential target for marketing new products and services. Furthermore, the caller is somewhat of a captive audience as the caller is seeking information of personal interest. An alternative embodiment of the invention includes the step of broadcasting a commercial to callers of the first SMTP email address. For example, the caller might hear "before we retrieve your messages, please listen to a brief message from our sponsor . . ." The caller might be presented with an option to pay for a subscription if they find the sponsor messages annoying or may enjoy the service free by their exposure to the advertisements. Another step may include surveying callers to the primary telephone number regarding caller

emographics. The demographic may include age, gender, occupation, residence and the like. Using this information, demographically targeted commercials may be broadcast to callers according to survey results. To encourage callers to engage in the survey questions, an additional step of offering prize incentives for engaging in survey activities may be included. The prize incentives may be long distance telephone credits and, preferably, the assignment of those credits to a preexisting long distance calling card.

ne objective of the current invention is to simplify the task of voice messaging and removing the tether of electronic equipment from the user. Accordingly, an alternative embodiment of the invention includes the steps of establishing a voice command zone. The voice command zone is a pre-designated area from which spoken commands and voice recordings are obtained. The zone may be established in an automobile passenger compartment, a human-inhabitable dwelling, or the like. An array of voice command instructions relating to the operation of an electronic message system is established. A microphone input means receives the voice command instructions. Responsive to a record command, an audio message received by the microphone input means is encapsulated into an email attachment and transmitted to a predetermined SMTP address. A play command broadcasts audio files attached to emails through a speaker means. Alternatively, a text-to-voice synthesizer synthesizes text messages into speech which is then broadcast through the speaker means responsive to the play command. For zones that have low ambient noise, an omni directional microphone is appropriate. However, where voice commands from a specific individual are desired, an alternative embodiment of the invention includes a target location sensor means. This may include an RF or IR transmitter placed on the individual. A target acquisition means picks up the RF or IR broadcast and points a unidirectional microphone input means towards the individual thereby avoiding extraneous audio noise.

yet another embodiment of the invention, a caller identity is established with a telephone connection and an audio clip recorded from the first telephone connection. An email target string is established. The audio clip, caller identity and email target string are encapsulated into an email attachment. The email attachment is then transmitted to an email account associated with the email target string and the email attachment is also stored in a sent items repository. This embodiment of the invention serves a critical function, particularly in the business and legal communities of providing a record of outbound communication. In the prior art, one business person may leave a message on a voice mail system, but is no means to prove that message was left, much less the actual content of that message. The ability to produce a record of outbound communication from one business to another serves the function to validate important communications and messages were actually transmitted. It is preferred that along with the email attachment, the email target string and a date-time stamp string are stored in association with the email attachment.

an alternative embodiment of the invention, a caller may wish to have a communication delivered at a predetermined time. Email communications are substantially instantaneous. Therefore, it might be known that an intended recipient may not be current available due to work schedule, time zone differences or the like. If the communication is immediately transmitted, the recipient may find it buried below more recent communications. Furthermore, many message systems provide immediate feedback with sound or an interface display when a new message is received. Accordingly, it would be advantageous to provide the ability to schedule the delivery of the communication. In this embodiment of the invention, a caller identity is associated with a telephone connection. An audio clip is recorded from the telephone connection. An email target string is established. The audio clip, caller identity and email target string are encapsulated into an email attachment. A broadcast time is established. The email attachment is then held in a queue until the broadcast time is reached wherein the email attachment is transmitted to an email account associated with the email target string. The email target string may be associated with a time zone associated with the physical location of the intended recipient. The broadcast time then may be automatically calculated relative to the time zone.

Accordingly, it is an object of the present invention to provide a method of transmitting an audio voice message to an e-mail address without the need of a computer.

is another object of the present invention to provide a method of replying to an audio voice message without the need to
y in a telephone number.

is another object of the present invention to provide a method maintaining a thread of voice mail correspondence.

is another object of the present invention to provide a means to store and validate the transmission and content of an

FIG. 4 is a schematic view of an embodiment of the invention for hands-free voice messaging.

FIG. 5 is a schematic view of an embodiment of the invention for saving outbound voice messages.

FIG. 6 is a schematic view of an embodiment of the invention featuring scheduled message delivery.

Referring initially to FIG. 1, it will there be seen that an illustrative embodiment of the prior is denoted by the reference numeral 10 as a whole. A first telephone connection 20 is made. The caller identity is established 30 and a first audio clip is recorded 40. The caller identity may be established by a plurality of means 35 which include, but are not limited to, DTMF entries, voice recognition of entries, or identification of a preexisting voice pattern all associated with a preexisting user account. An email target string is established 50. The email target string may be established by DTMF entries, speed dial function or voice recognition 60. The caller identity, audio clip and email target string are encapsulated into a first email attachment 70. Preferably, the attachment is encrypted 80 and a hash is generated. The attachment is transmitted to a first email account 90. Responsive to a second telephone connection 100, the first email account is accessed and the audio clip is played 110 over the second telephone connection. The caller is prompted for a reply recording 120 and a second audio clip is recorded 130. The second audio clip is encapsulated into a second email attachment 140 and optionally the first audio clip is appended 150 to establish a thread of related messages. The second email attachment is then transmitted to a second email account 160 associated 170 with the original caller identity 30.

FIG. 2 shows an embodiment of the invention that provides a common identity for both telephone and email communications while allowing access from either medium. An SMTP address is established 180 which contains an alphanumeric character string common to a telephone extension 200 established off a primary telephone number 190. Preferably, the alphanumeric characters are all integers, and thus easily entered on a touch-tone telephone. A text-to-speech synthesis means 210 reads text messages over the telephone and responses are digitized 220 for outgoing messaging over the telephone connection. Users are able to access the email account through standard POP3 mail connections as well.

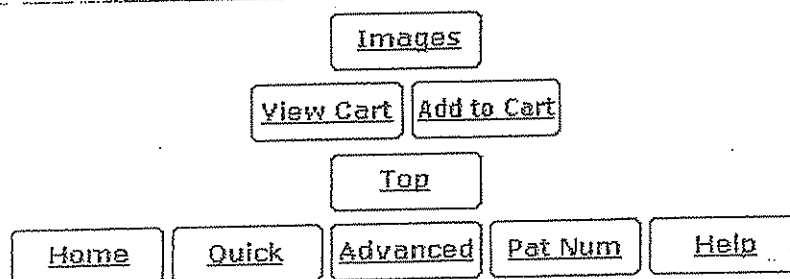
[G. 3 illustrates an embodiment of the invention wherein a call is made to the extension 230 and a commercial is broadcast 240 to the caller. This provides a means of paying for the infrastructure of the telecommunications system without necessarily requiring a subscription to the service. Surveys may be initiated 250 which can then demographically target 260 the most appropriate commercial broadcast 240 according to the characteristics of the individual caller. Survey size incentives 270 may be offered to encourage active participation in the surveys. A means of distributing the dual VTP and extension information may be through the use of calling cards. These calling cards are traditionally used for long distance service credits that are expended as the user makes calls. Login passwords for the SMTP address and/or IDs for accessing the system via telephone may be secured as scratch-off areas on the physical card itself. Alternatively, the cards may be wrapped or covered with an opaque material that indicates if the material has been tampered with. Such privacy sealing means are well known and often employed for lottery tickets and sweepstakes prizes. Long distance service may be employed as an incentive for submitting to surveys 280 which can then be used to encourage more use of the service 290.

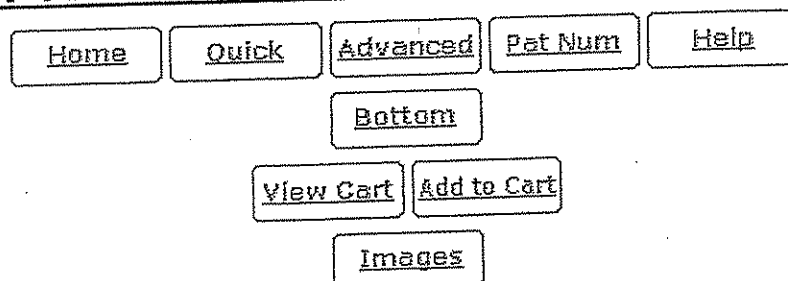
FIG. 4, a voice command zone is established 300. This zone may be the interior of a vehicle 310 a hospital room 320, any type of human inhabitable dwellings. An array of voice command instructions 330 are established and received by microphone means 340. The microphones 350 may comprise two general types: omni directional 360 and unidirectional 370. In the case of omni directional microphones 360 sounds from in a 360 degree sweep are recorded. However, in the case of unidirectional microphones 370 a single point is recorded. Accordingly, an RF or IR transmitter may be placed on the person 380 sought to be recorded and an RF or IR acquisition means 390 dynamically tracks the location of the person 380 and points to the unidirectional microphone 370 towards the appropriate target. A voice command initiates a corresponding SMTP command 400 to generate a new message or reply to an existing message. Audio recording is initiated responsive to a record command 410 and the audio recording is encapsulated 420 into an email attachment which is then transmitted 430 to a predetermined email address.

FIG. 6, a caller identity is established 30. An audio clip is recorded 40 and an email target string is established 50. A broadcast time is established 460. This time may be resolved automatically by calculating the time zone difference 470 between the sender and recipient of the message. The caller identity, audio clip and email target string are all encapsulated to an email attachment 70 and then transmitted to a predetermined email address 90 associated with the email target string at the established broadcast time.

is also to be understood that the following claims are intended to cover all of the generic and specific features of the invention herein described, and all statements of the scope of the invention which, as a matter of language, might be said to fall therebetween.

* * * * *



USPTO PATENT FULL-TEXT AND IMAGE DATABASE

(1 of 1)

United States Patent
Baxter, Jr.

6,839,412
January 4, 2005

audio file transmission method

Abstract

computer implemented method of transmitting electronic voice messages including the steps of establishing a caller entity associated with a first telephone connection, recording a first audio clip from the first telephone connection, establishing an email target string, encapsulating the first audio clip, the caller identity and the email target string into a first email attachment, transmitting the first email attachment to a first email account associated with the email target string, broadcasting the first audio clip to a second telephone connection, prompting the second telephone connection for a reply recording, responsive to a record signal, recording a second audio clip from the second telephone connection, encapsulating the second audio clip and the caller identity into a second email attachment, and transmitting the second email attachment to a second email account associated with the caller identity.

Inventors: Baxter, Jr.; John Francis (Marco Island, FL)

Appl. No.: 10/604,617

Filed: August 5, 2003

Related U.S. Patent Documents

<u>Application Number</u>	<u>Filing Date</u>	<u>Patent Number</u>	<u>Issue Date</u>
682431	Aug., 2001	6765996	
517415	Mar., 2000	6385306	May., 2002

Current U.S. Class:

Current International Class:

379/88.14 ; 379/88.13; 379/88.17; 379/88.21; 709/206
H04L 12/58 (20060101); H04M 3/53 (20060101); H04M
3/50 (20060101); H04M 1/65 (20060101); H04Q 1/30 (20060101);
H04M 1/57 (20060101); H04Q 1/45 (20060101); H04M 001/64 ()
379/88.16-88.25,93.01,93.12,93.24,93.26-
93.28,114.01,114.1,114.13,142.04,142.05,142.06,335.01-335.1
370/351-356 709/201,203,206

Field of Search:

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Primary Examiner: Foster; Roland
Attorney, Agent or Firm: Hopen; Anton J. Smith & Hopen, P.A.

RELATED APPLICATIONS

This disclosure is a divisional application claiming the benefit of the filing date of U.S. patent application entitled: "Audio
le Transmission Method," by the same inventor, filed on Aug. 31, 2001, bearing Ser. No. 09/682,431 now U.S. Pat. No.
765,996, which is a Continuation-in-Part to U.S. patent application Ser. No. 09/517,415 that was filed Mar. 2, 2000 and
issued as U.S. Pat. No. 6,385,306 on May 7, 2002.

Claims

hat is claimed is:

A computer implemented method of transmitting electronic voice messages comprising the steps of: establishing a first SMTP email address, the first SMTP email address having a distinct prefix address and a domain address; establishing a primary telephone number; establishing an extension to the primary telephone number, the extension containing alphanumeric characters identical to the distinct prefix address; establishing a text-to-speech synthesizer responsive to a call to the primary telephone number and extension wherein email messages sent to the first SMTP address are synthesized into computer-generated speech; establishing a voice digitizing means wherein reply messages spoken to the primary telephone number and extension are converted into an audio computer file and transmitted to a second SMTP address as an email attachment.

The method of claim 1 further comprising the step of broadcasting a commercial to callers of the first SMTP email address.

The method of claim 1 further comprising the step of surveying callers to the primary telephone number regarding caller demographics.

The method of claim 3 further comprising the step of broadcasting demographically targeted commercials to callers according to survey results.

The method of claim 3 further comprising the step of offering prize incentives for engaging in survey activities.

The method of claim 6 wherein the long distance telephone credits are assigned to a preexisting long distance calling card.

Description

Field of Invention

Background of the Invention

ne voice message is a sequence of analog signals that are converted to digital signals by the audio card, using a microchip called an analog-to-digital converter (ADC). When sound is played, the digital signals are sent to the speakers where they are converted back to analog signals that generate varied sound. Audio files are usually compressed for storage or faster transmission. Audio files can be sent in short stand-alone segments—for example, as files in the WAV format. In order for users to receive sound in real-time for a multimedia effect, listening to music, or in order to take part in an audio or video conference, sound must be delivered as streaming sound. More advanced audio cards support wave tables, or pre-captured tables of sound. The most popular audio file format today is MP3 (MPEG-1 Audio Layer-3).

Attempts have been made to develop unified messaging systems that link video, text, audio, document management and e-mail into a single system. However, such attempts have not provided a means to enable voice messaging to maintain continuity throughout a thread, store outbound voice communications, and provide a reply function equivalent to the simplicity of email replies. Furthermore, many unified messaging applications require expensive proprietary equipment. Herein typical SMTP email servers are inexpensive, well-developed and already employed by most medium or larger business entities.

Consequently, there is a need in the art for a method of transmitting an audio voice message to an email address without

United States Patent: 6839412

the need of a computer.

there is a further need in the art for a method of replying to an audio voice message without the need to key in a telephone number.

there is a further need in the art for a method maintaining a thread of voice mail correspondence.

there is a further need in the art for a means to store and validate the transmission and content of an outgoing voice message.

there is a further need in the art for a novel dual email and telephone extension identity for user to access voice messages from a telephone or computer using a common set of alphanumeric characters.

there is a further need in the art for a new means of delivering audio advertisements to a captive audience.

there is a further need in the art for a new means of obtaining survey and demographic data.

there is a further need in the art for a method to provide untethered access to voice and email messaging using voice command zones.

there is a further need in the art for a means of scheduling the delivery of voice messages to enhance the impact on the recipient.

however, in view of the prior art in at the time the present invention was made, it was not obvious to those of ordinary skill in the pertinent art how the identified needs could be fulfilled.

SUMMARY OF INVENTION

The above and other objects of the invention are achieved in the embodiments described herein by providing a computer implemented method of transmitting electronic voice messages comprising the steps of establishing a caller identity associated with a first telephone connection. This may be achieved by parsing the Telco caller ID string and associating that string with a preexisting user record. In other words, a call from 727-507-8558 might be associated with the identity of a law firm and linked to additional records such as address, fax, user name, email address and the like. For most applications, it is preferred that the caller ID string be linked to the email address of the caller in order that the recipient may easily reply to the original message.

In the next step, a first audio clip is recorded from the first telephone connection. The audio clip may be digitized in any number of computer readable formats including, but not limited to, WAV, AIFF, MP3 and the like. An email target string is then established. This might be resolved by a number of alternative methods. First, a "speed dial" interface may be established. The interface might be resident in an operating system, network appliance or on a website. Users preconfigure their settings similar to speed dials used in standard telephone systems wherein numerals are associated with the email target string. This has the advantage that alphanumeric characters are easily entered on a computer keyboard, but are problematic on a telephone system. A typical telephone has twelve keys which may be depressed in various combinations to resolve an alphabetic character. Alternatively, the individual alphanumeric characters may be individually spoken and resolved with voice recognition means as disclosed in U.S. patent application Ser. No. 09/517,415 filed Mar. 2000 which is incorporated by reference.

The first audio clip, the caller identity and the email target string are all encapsulated into a first email attachment. The first email attachment is then transmitted to a first email account which is associated with the email target string. This is typically an SMTP address accessed directly from an information store such as Microsoft Exchange, Novell Groupwise or the like. Alternatively, it may be stored offsite and accessed through a POP3 means. A second telephone connection receives the first email attachment wherein the first audio clip is broadcast to the second telephone connection. Once broadcast, the caller is then prompted for a reply recording. Responsive to a record signal, a second audio clip from the second telephone connection is then recorded. The second audio clip, the caller identity and the email target string are all

encapsulated into a second email attached which is then transmitted to a second email account associated with the caller identity.

In order to establish a thread of messages having a common topic, the first audio clip is appended to the second audio clip. The second audio clip might be placed after the first audio clip in order to preserve the chronological order of the thread, or the second audio clip might be placed before the first audio clip in order to avoid the need to hear previously transmitted audio data. It should be understood that the reply loops may continue on far beyond one initiating email and a single reply. It is also anticipated that carbon copies, blind carbon copies and forwarded be enabled as they are standard SMTP functions.

It is preferred that the recording time is encapsulated into the email attachments with a date/time stamp. This may be achieved by encoding the alphanumeric characters of the date and time into the text body of the email message. Alternatively, the date and time may be synthesized as speech and appended to the audio clip.

Providing system security includes the steps of establishing the caller identity associated with the first telephone connection by receiving a password entry from the first telephone connection and associating the password entry against a preexisting caller account. Receiving the password entry may include interpreting at least one DTMF signal responsive to the keying of buttons on a touch-tone telephone. Alternatively, the process may include the step of receiving the password entry by interpreting at least one alphanumeric character as spoken into the telephone. In another embodiment, the invention utilizes biometrics by receiving a predetermined call phrase, reducing the call phrase to a voice pattern, and associating the voice pattern against a preexisting caller account by speech identification means such as described by U.S. Pat. No. 5,608,784 of which specification is incorporated by reference.

The email target string may be established by the steps of interpreting a plurality of DTMF signals responsive to the keying of buttons on a touch-tone telephone. Alternatively, the step may include receiving a plurality of individually spoken alphanumeric characters representative of the email target string and translating the spoken characters to their binary equivalent by a speech identification means.

With sensitive communications, it is preferred that the email attachment be encrypted. As an added security measure, an additional step may be employed by establishing a hash of the first email attachment and storing the hash in a secure storage means.

In another embodiment of the invention includes the steps of establishing a first SMTP email address, the first SMTP email address having a distinct prefix address and a domain address. For example, in a common email address format such as "2224848@uspto.gov" the prefix address would be "2224848" and the domain address would be "@uspto.gov." In the next step a primary telephone number is established. This number is preferably a toll-free number that is easily remembered with an alphabetic phrase correlated to the numerals of the number. For illustrative purposes, an example number might be "1-800-555-EMAIL." In the next step, an extension to the primary telephone number is established. The extension contains alphanumeric characters identical to the distinct prefix address. For example, the above-mentioned email address could have an extension of 2224848. The full dialing string to the account would be "1-800-555-EMAIL, ext. 2224848." A text-to-speech synthesizer established which is responsive to a call to the primary telephone number and extension wherein email messages sent to the first SMTP address are synthesized into computer-generated speech. A voice digitizing means is then established wherein reply messages spoken to the primary telephone number and extension are converted into an audio computer file and transmitted to a second SMTP address as an email attachment.

Callers that wish to retrieve their email from a regular telephone may be identified by businesses as a potential target for marketing new products and services. Furthermore, the caller is somewhat of a captive audience as the caller is seeking information of personal interest. An alternative embodiment of the invention includes the step of broadcasting a commercial to callers of the first SMTP email address. For example, the caller might hear "before we retrieve your messages, please listen to a brief message from our sponsor . . ." The caller might be presented with an option to pay for a subscription if they find the sponsor messages annoying or may enjoy the service free by their exposure to the advertisements. Another step may include surveying callers to the primary telephone number regarding caller demographics. The demographic may include age, gender, occupation, residence and the like. Using this information, demographically targeted commercials may be broadcast to callers according to survey results. To encourage callers to

ne objective of the current invention is to simplify the task of voice messaging and removing the tether of electronic equipment from the user. Accordingly, an alternative embodiment of the invention includes the steps of establishing a voice command zone. The voice command zone is a pre-designated area from which spoken commands and voice recordings are obtained. The zone may be established in an automobile passenger compartment, a human-inhabitable dwelling, or the like. An array of voice command instructions relating to the operation of an electronic message system is established. A microphone input means receives the voice command instructions. Responsive to a record command, an audio message received by the microphone input means is encapsulated into an email attachment and transmitted to a predetermined SMTP address. A play command broadcasts audio files attached to emails through a speaker means. Alternatively, a text-to-voice synthesizer synthesizes text messages into speech which is then broadcast through the speaker means responsive to the play command. For zones that have low ambient noise, an omni directional microphone is appropriate. However, where voice commands from a specific individual are desired, an alternative embodiment of the invention includes a target location sensor means. This may include an RF or IR transmitter placed on the individual. A target acquisition means picks up the RF or IR broadcast and points a unidirectional microphone input means towards the individual thereby avoiding extraneous audio noise.

an alternative embodiment of the invention, a caller may wish to have a communication delivered at a predetermined time. Email communications are substantially instantaneous. Therefore, it might be known that an intended recipient may not be current available due to work schedule, time zone differences or the like. If the communication is immediately transmitted, the recipient may find it buried below more recent communications. Furthermore, many message systems provide immediate feedback with sound or an interface display when a new message is received. Accordingly, it would be advantageous to provide the ability to schedule the delivery of the communication. In this embodiment of the invention, a caller identity is associated with a telephone connection. An audio clip is recorded from the telephone connection. An email target string is established. The audio clip, caller identity and email target string are encapsulated into an email attachment. A broadcast time is established. The email attachment is then held in a queue until the broadcast time is reached wherein the email attachment is transmitted to an email account associated with the email target string. The email target string may be associated with a time zone associated with the physical location of the intended recipient. The broadcast time then may be automatically calculated relative to the time zone.

is another object of the present invention to provide a method of replying to an audio voice message without the need to
y in a telephone number.

is another object of the present invention to provide a means to store and validate the transmission and content of an outgoing voice message.

FIG. 5 is a schematic view of an embodiment of the invention for saving outbound voice messages.

FIG. 6 is a schematic view of an embodiment of the invention featuring scheduled message delivery.

ETAILED DESCRIPTION

FIG. 2 shows an embodiment of the invention that provides a common identity for both telephone and email communications while allowing access from either medium. An SMTP address is established 180 which contains an alphanumeric character string common to a telephone extension 200 established off a primary telephone number 190. Preferably, the alphanumeric characters are all integers, and thus easily entered on a touch-tone telephone. A text-to-speech synthesis means 210 reads text messages over the telephone and responses are digitized 220 for outgoing messaging over the telephone connection. Users are able to access the email account through standard POP3 mail connections as well.

FIG. 3 illustrates an embodiment of the invention wherein a call is made to the extension 230 and a commercial is broadcast 240 to the caller. This provides a means of paying for the infrastructure of the telecommunications system without necessarily requiring a subscription to the service. Surveys may be initiated 250 which can then demographically target 260 the most appropriate commercial broadcast 240 according to the characteristics of the individual caller. Survey incentive 270 may be offered to encourage active participation in the surveys. A means of distributing the dual MTP and extension information may be through the use of calling cards. These calling cards are traditionally used for long distance service credits that are expended as the user makes calls. Login passwords for the SMTP address and/or PINs for accessing the system via telephone may be secured as scratch-off areas on the physical card itself. Alternatively, the cards may be wrapped or covered with an opaque material that indicates if the material has been tampered with. Such privacy sealing means are well known and often employed for lottery tickets and sweepstakes prizes. Long distance service may be employed as an incentive for submitting to surveys 280 which can then be used to encourage more use of the service 290.

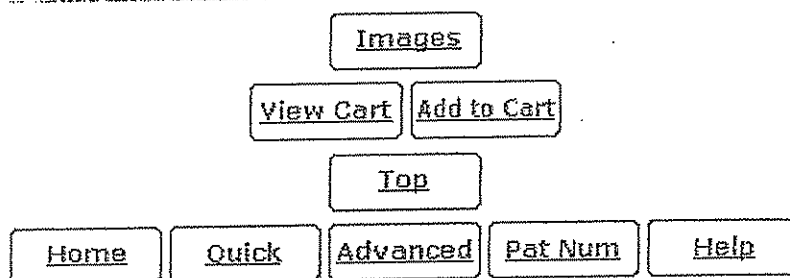
FIG. 4, a voice command zone is established 300. This zone may be the interior of a vehicle 310 a hospital room 320, any type of human inhabitable dwellings. An array of voice command instructions 330 are established and received by any type of human inhabitable dwellings. An array of voice command instructions 330 are established and received by any type of human inhabitable dwellings. The microphones 350 may comprise two general types: omni directional 360 and unidirectional microphone means 340. In the case of omni directional microphones 360 sounds from in a 360 degree sweep are recorded. However, in the case of unidirectional microphones 370 a single point is recorded. Accordingly, an RF or IR transmitter may be placed on the person 380 sought to be recorded and an RF or IR acquisition means 390 dynamically tracks the location of the person 380 and points to the unidirectional microphone 370 towards the appropriate target. A voice command initiates a responding SMTP command 400 to generate a new message or reply to an existing message. Audio recording is initiated responsive to a record command 410 and the audio recording is encapsulated 420 into an email attachment which is then transmitted 430 to a predetermined email address.

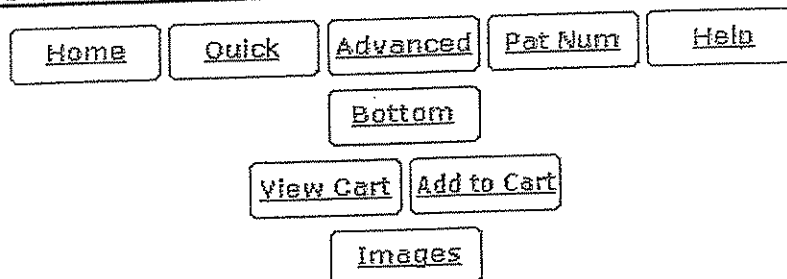
FIG. 5, a caller identity is established 30. An audio clip is recorded 40 and an email target string is established 50. The

FIG. 6, a caller identity is established 30. An audio clip is recorded 40 and an email target string is established 50. A broadcast time is established 460. This time may be resolved automatically by calculating the time zone difference 470 between the sender and recipient of the message. The caller identity, audio clip and email target string are all encapsulated to an email attachment 70 and then transmitted to a predetermined email address 90 associated with the email target string at the established broadcast time.

is also to be understood that the following claims are intended to cover all of the generic and specific features of the invention herein described, and all statements of the scope of the invention which, as a matter of language, might be said fall therebetween.

* * * * *



USPTO PATENT FULL-TEXT AND IMAGE DATABASE

(1 of 1)

United States Patent
Baxter, Jr.

6,385,306
May 7, 2002

audio file transmission method

Abstract

method of transmitting one or more audio file attachments in an electronic message from a telephone including the steps of dialing into a predetermined telephone number, sending one or more DTMF signals on the touch-tone telephone corresponding to a preselected email address wherein the one or more DTMF signals is associated with a predetermined alphanumeric character, assembling a string of alphanumeric characters by repeating the DTMF signal entry until the preselected email address has been completed, recording an audio voice message over the touch-tone telephone, converting the audio voice message into a digital audio file, attaching the digital audio file to an electronic message directed to the preselected email address, and transmitting the electronic message to the preselected email address.

Inventors: Baxter, Jr.; John Francis (Marco Island, FL)

Appl. No.: 09/517,415

Filed: March 2, 2000

Current U.S. Class:

Current International Class:

Field of Search:

379/88.13 ; 379/88.24; 379/93.28; 709/206

H04L 12/58 (20060101); H04M 3/53 (20060101); H04M 3/50 (20060101); H04M 1/57 (20060101); H04M 1/65 (20060101); H04Q 1/30 (20060101); H04Q 1/45 (20060101); H04M 011/00 (20060101)

379/88.13, 88.14, 88.16-88.25, 93.01, 93.12, 93.24, 93.26-93.28, 114.01, 114.1, 114.13 370/351-356 709/201, 203, 206

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Primary Examiner: Tsang; Fan
Assistant Examiner: Foster; Roland G.
Attorney, Agent or Firm: Hopen; Anton J. Smith & Hopen, P.A.

Claims

What is claimed is:

. A method of transmitting one or more audio file attachments in an electronic message from a touch-tone telephone comprising the steps of:

- 1) dialing into a predetermined telephone number;
- 2) sending an identification code to a central server by sending DTMF signals on said touch-tone telephone;
- 3) associating said identification code with a subscriber record;
- 4) validating the authenticity of said subscriber record;
- 5) authorizing the transmission of said electronic message based upon whether said identification code is authentic;
- 6) sending one or more DTMF signals on said touch-tone telephone corresponding to preselected email address wherein said one or more DTMF signals results in a unique selection of a predetermined alphanumeric character;

- A method of transmitting one or more audio file attachments in an electronic message from a telephone comprising the steps of:

-) dialing into a predetermined telephone number;
-) receiving one or more speech elements through said telephone;
-) associating each individual speech element with one or more predetermined alphanumeric characters through a speech cognition means;
-) assembling a string of alphanumeric characters by repeating steps (b) through (c) until a preselected email address has been completed by providing a wait loop of predetermined duration to identify said predetermined alphanumeric character, identifying said predetermined alphanumeric character according to said one or more speech elements received during said wait loop, and appending said predetermined alphanumeric character as identified at the end of said wait loop;
-) recording an audio voice message over said telephone;
-) converting said audio voice message into a digital audio file;
-) attaching said digital audio file to said electronic message directed to said preselected email address; and
-) transmitting said electronic message to said preselected email address.

Description

FIELD OF INVENTION

The present invention relates generally to a method of transmitting audio messages over a network, and more particularly, to a method of recording and retrieving audio attachments to electronic mail by use of a touch-tone telephone.

BACKGROUND OF THE INVENTION

Electronic mail ("email") has proliferated as a common method of communication. Initial communications consisted of ASCII (American Standard Code for Information Interchange) text. In an ASCII file, each alphabetic, numeric, or special character is represented with a 7-bit binary number (a string of seven 0s or 1s). 128 possible characters are defined. However, basic ASCII text email messages have progressed to include graphics, audio and even video. Graphic images, digital audio files and digital video all require an encoding and decoding process when transmitted over the Internet. A user wishing to encode a voice message and send the message to a preselected email address had to accomplish several steps and have certain hardware and software equipment. The user would typically record their voice message on a computer using a sound card attached or integrated into the motherboard of a computer.

The voice message is a sequence of analog signals that are converted to digital signals by the audio card, using a microchip called an analog-to-digital converter (ADC). When sound is played, the digital signals are sent to the speakers where they are converted back to analog signals that generate varied sound.

Audio files are usually compressed for storage or faster transmission. Audio files can be sent in short stand-alone segments --for example, as files in the WAV format. In order for users to receive sound in real-time for a multimedia effect, listening to music, or in order to take part in an audio or video conference, sound must be delivered as streaming sound. More advanced audio cards support wavetables, or precaptured tables of sound. The most popular audio file format today is MP3 (MPEG-1 Audio Layer-3).

Since these digital audio files reside on the hard drive of the user, the user would attach the file to an email sent to a selected recipient. When the file is attached, it might be transmitted in a standardized protocol such as Multi-Purpose Internet Mail Extensions (herein "MIME"). MIME is an extension of the original Internet e-mail protocol that lets people use the protocol to exchange different kinds of data files on the Internet: audio, video, images, application programs, and other kinds, as well as the ASCII handled in the original protocol, the Simple Mail Transport Protocol (SMTP). In 1991, Nathan Borenstein of Bellcore proposed to the Internet Engineering Task Force that SMTP be extended so that Internet (but mainly Web) clients and servers could recognize and handle other kinds of data than ASCII text. As a result, new file types were added to "mail" as a supported Internet Protocol file type.

Servers insert the MIME header at the beginning of any Web transmission. Recipients use this header to select an appropriate "player" application for the type of data the header indicates. Some of these players are built into the Web client or browser (for example, all browsers come with GIF and JPEG image players as well as the ability to handle HTML files); other components, such as audio file players, may need to be downloaded.

U.S. Pat. No. 5,945,989 to Freishtat et al. describes a method of adding or altering the content of a website by using a touch-tone telephone. Freishtat et al. describes a processing of converting a telephone message into an audio file which can then be posted on a website (col. 2, lines 19-22; col. 4, lines 33-34; and col. 5, lines 6-7). There is also a suggestion that a handset on a touch-tone telephone operates as "a kind of substitute computer keyboard." (col. 2, lines 26-27 and col. 3, lines 24-26). However, the patent does not describe or suggest any means for transmitting the audio file by email. Nor does the touch-tone telephone entry describe or suggest a method of keying in any alphanumeric character based on the number of times the telephone button is depressed within a specified wait loop. Rather, the Freishtat et al. patent requires a user to establish a pre-existing touch-tone ID for each page element. (col. 6, lines 48-49; col. 9, lines 62-65; and col. 10, lines 3-4). Accordingly, while the Freishtat et al. patent describes a method of digitizing recorded audio from a touch-tone telephone to a file for publication on a web server, there is no description nor suggestion that the recording of the audio file would be transmitted to a predetermined email recipient. Furthermore, there is no teaching or suggestion for a method of keying in the necessary array of alphanumeric characters to properly designate an email recipient over a touch-

U.S. Pat. No. 5,996,006 to Speicher describes an online dating service that converts audio files received via telephone into digital files for retrieval on the Internet. (col. 5, lines 27-29 and col. 6, lines 37-39). However, the Speicher patent does not describe nor suggest a method of directly sending the recorded audio file to a predetermined email recipient. Nor does the Speicher patent describe or teach a method of keying in the necessary alphanumeric characters necessary to establish a preselected Internet email address over a touch-tone telephone. (See col. 6, lines 60-63 wherein Speicher teaches that the email address must be recorded by audio, then later manually translated to alphanumeric form).

consequently, there is a need in the art for a method of transmitting digital audio file attachments to a preselected email address without requiring the recipient to first set up an account with a service.

However in view of the prior art at the time the present invention was made, it was not obvious to those of ordinary skill in the pertinent art how the identified needs could be fulfilled.

re above and other objects of the invention are achieved in the embodiments described herein by providing a method of transmitting one or more audio file attachments in an electronic message from a touch-tone telephone comprising the steps of dialing into a predetermined telephone number, sending one or more DTMF signals on the touch-tone telephone corresponding to a preselected email address wherein the one or more DTMF signals is associated with a predetermined alphanumeric character, assembling a string of alphanumeric characters by repeating the DTMF signal entry until the preselected email address has been completed, recording an audio voice message over the touch-tone telephone, converting the audio voice message into a digital audio file, attaching the digital audio file to an electronic message directed to the preselected email address, and transmitting the electronic message to the preselected email address.

When a recipient receives a message from the caller, the return email address will typically be that of the central server. It is preferable that the recipient have the ability to correspond directly back to the caller by email if possible. This is accomplished by associating an alphanumeric reply string with the subscriber record and encoding the alphanumeric reply string into the electronic message in a reply-to field wherein a recipient of the electronic message may send a return electronic message addressed to the alphanumeric reply string.

For example, pressing the numeral "2" once within two second results in the alphanumeric character "2" being recorded

Additional steps to verify the correct email address of the proposed recipient may include providing a text-to-speech audio confirmation of the string of predetermined alphanumeric characters comprising the preselected email address. For even more specific confirmation, the text-to-speech confirmation is played upon determination of each alphanumeric character selected. Once the email address is entered and confirmed, the next set of preferred steps include prompting for the audio voice message by an automated voice response, recording the audio voice message, and detecting a DTMF stop signal.

There is also an opportunity to present additional information, not just to the recipient of the electronic message, but also the sender by playing an audio sponsor message upon making a connection to the predetermined telephone number. In order to enhance the effectiveness of the audio sponsor message, another step might include selecting the audio sponsor message from an array of audio sponsor messages according to one or more demographic factors of the caller wherein the one or more demographic factors are resolved from a caller-ID string.

electronic devices can easily reproduce the DTMF signals. In an alternative embodiment of the invention, a personal digital assistant (herein "PDA") device transmits the one or more DTMF signals through the touch-tone telephone. Popular PDAs include the 3COM PalmPilot.RTM. and Windows CE.RTM. devices. These PDAs have easy to use and sophisticated address book features. By utilizing a predetermined table of alphanumeric character to DTMF signal conversions, the PDAs can be programmed to dial into the predetermined telephone number and send the appropriate DTMF identifiers for a particular email address. However, in this embodiment, it would be disadvantageous to utilize a wait loop for entry of the DTMF signals as the PDAs can produce the signals at a much faster rate than can be achieved by manually pressing the buttons on a touch-tone telephone. Therefore, to overcome this problem, an entry of one or more DTMF signals corresponding to the unique selection of the predetermined alphanumeric character is followed by a stop DTMF signal indicating acceptance of the predetermined alphanumeric character without utilizing the wait loop. Therefore, once the DTMF signal or combination of signals are received followed by the stop DTMF signal, the next alphanumeric character may be entered without waiting for a predetermined elapse of time.

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particular problem that currently exists with many voice mail systems is the inability to easily archive the voice messages. In many situations, it would be advantageous to store the voice message in a particular file directory or associate the message with a particular contact. Popular contact management software such as Symantec's ACT!.RTM, and Microsoft's Outlook.RTM. are capable of organizing and storing binary files such as digital audio. While current voice mail systems permit the user to save a voice mail message, the user must continually cycle through the old messages to find the message of interest. By providing an easy to use, one-touch operation, voice messages stored on telecommunication devices, and particularly wireless devices which are often used outside a formal office setting, may be archived, stored and organized for later retrieval and use.

addition, the telecommunication devices may be preconfigured to transmit an alphanumeric header string permitting the particular voice mail being forwarded to be associated with a particular contact or file directory on the recipient's computer. For example, if a user receives a voice message on his cellular telephone that relates to a business matter, he might assign a "01" value to the voice message before forwarding the message for ultimate delivery by email. The "01" value is associated with a business matter and is placed in the subject field of the email message. The recipient's email communication program is pre-configured to recognize the "01" value and automatically place the email and attached digital audio file into a predetermined file folder. In Microsoft Outlook.RTM. this procedure is called a "rule." Alternatively, the user might assign a value of "02" to the message which directs it to a file folder on the recipient's computer which holds personal voice messages.

is another object of the present invention to provide a method of transmitting an audio voice message to an email address without requiring a pre-configured voicemail account.

One advantage of the invention is that callers are able to send an audio voice message to any email address without any other information such as telephone, address, extension numbers or the like.

Another advantage of the invention is that persons with disabilities that make it difficult to type regular messages can transmit communications through the Internet by simply pressing touch-tone buttons, or alternatively, by speaking the alphanumeric characters associated with an email address.

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the invention accordingly comprises the features of construction, combination of elements, and arrangement of parts that will be exemplified in the description set forth hereinafter and the scope of the invention will be indicated in the claims.

or a fuller understanding of the nature and objects of the invention, reference should be made to the following detailed description, taken in connection with the accompanying drawings, in which:

DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENT

FIG. 2 illustrates the general audio encoding process 70 of the prior art. The telephone caller 20 leaves an audio voice message which is digitized and stored 80 on a hard drive 90 as a digital audio file which is then associated 100 with a predetermined email address and encoded and attached 40 into an email message. The message is then saved 110 in a mail server where it is then transmitted 120 to the recipient's email account.

Of course, it is apparent that the number of unique DTMF signals available from the standard DTMF protocol, 200 available on a typical, non-military telephone is woefully inadequate to produce the 40 to 50 required alphanumeric characters needed to resolve an email address. Accordingly, one possible method of identifying a unique alphanumeric character is by discerning a plurality of alphanumeric characters based on the number of times a button on a touch tone telephone is depressed. In FIG. 4, a touch tone telephone keypad 220 is depicted wherein the depression the "1" button once identifies the "@" character which is required for all Internet email addresses between the user account name and the main name information. Depressing the "1" button twice identifies the "." character. Depressing the "1" button three times identifies the "-" character, and so on.

G. 6 is representative of the method of the invention wherein a caller 20 dials into a voice mail server 30 which prompts the caller 20 for identification. The caller 20 enters in an identification code on the touch-tone telephone keypad 220. The voice mail server 30 validates the identification code and provides audio response messages 230 to guide the caller 20 through the system menus. The caller 20 can retrieve previously entered numbers in his or her address book 240 or may manually enter a new email address using the touch-tone telephone keypad 220. After the initial entry of a new email address, the caller 20 has the option of storing 250 the email address in his or her address book 240 for later retrieval. The

voice mail server 30 then records the caller's audio voice message 90 onto a storage medium. The voice message is compressed and encoded into a digital audio file 40 and then attached to the email address previously identified 110. The email and digital audio file attachment is then opened and listened to by the recipient 260.

FIG. 7 is a detailed illustration of an audio file encoding process comprising the steps of encoding the caller's voice message 270, appending a sponsor message 280, encoding the caller's email address in the reply field 290 of the email message and encoding a sponsor message in the text body 300 of the email message. If a sponsor message 280 is to be encoded, it is preferred that it be prior to the caller's voice message to ensure that the content will be listened to by the recipient. Encoding the caller's email address in the reply field 290 of the email message provides convenience to the recipient wherein the recipient can communicate back to the caller by replying to the email message. Of course, the invention does not require the caller to even have an email account, so in that case, the reply field of the email message may simply indicate the email or central server that encoded and sent the original message.

FIG. 8 illustrates an embodiment of the invention wherein the caller is presented with a sponsor message. In the example, a greeting is presented to the caller 310. The voice mail system indicates that the caller has three messages 320. An important feature of the present invention is not just that the caller can transmit audio voice messages via a telephone, but that he or she can retrieve text and audio messages from a telephone as well. For purely text messages, a voice-to-speech synthesizer can play back received messages over the telephone connection. If a digital audio file is attached, the system can playback the audio file attachment over the telephone system. Of course, this requires additional pre-configuration which may simply comprise the setup variables necessary to access the caller's existing POP3 server. Before the caller can access his or her menu of options, the system notifies the caller that a brief sponsor message will be broadcast 330. The sponsor message may include an option to transfer the caller to its own call center 340. Upon acceptance of the transfer, typically by sending a DTMF signal by depression of a button on the caller's touch tone telephone 350, the caller is transferred to the sponsor's call center 360. Alternatively, should the caller wish to proceed without the transfer, an alternative DTMF signal 370 would pass the caller into the system menu 380 for sending new audio voice messages.

FIG. 9, a call is received by the system 390 wherein a caller-ID string 400 determines the geographic location where the call originated from. The geographic location is then cross-referenced 410 against property values for that location. A financial rating variable 420 is then assigned to the caller. If the property values for the call's origin are relative high, then sponsor messages are broadcast that match the demographics of a high financing rating variable 430. Median ratings are attached with the appropriate demographic sponsor messages 440 and low financial ratings are also associated with one or more sponsor messages 450.

PDAs are easily capable of producing the appropriate DTMF signals necessary to resolve the alphanumeric characters in an email address. In FIG. 10, a PDA 460 transmits DTMF signals 470 to a standard touch-tone telephone 20. An advantage of using the PDA is that most PDA include built-in address books wherein email addresses may be easily called. Should a PDA be used, a DTMF end signal should be incorporated when resolving the alphanumeric character from the DTMF signals. This is shown in FIG. 11 wherein each subset of DTMF signals is followed by the pound "#" signal (941 and 1477 Hz tones). This permits the PDA to rapidly enter in the preselected email address without having to use for the wait loop disclosed in FIG. 5.

While voice recognition translation of audio messages to text would be very useful in telecommunication applications, certain logistical considerations remain. There are large variations in the phonetics spoken by individuals which are difficult for software algorithms to interpret correctly and there are tens-of-thousands of words that must be identified and translated for a voice recognition system to be useful in the traditional sense. High CPU and memory requirements, as well as high-quality audio connections often make voice recognition expensive and unreliable.

However, rather than interpret thousands of individual words, it is much easier to recognize individual alphanumeric characters spoken into a voice recognition system. An array of 50 alphanumeric characters and associated speech patterns permit the caller 20 in FIG. 12 to forgo manual DTMF entry wherein a call is placed to a voice mail server 30, the spoken individual alphanumeric characters are interpreted via a voice recognition processor 480 so that a string of alphanumeric characters is assembled into an email address. In FIG. 13, a table is provided showing the steps to a voice recognition try of the alphanumeric characters comprising an email address. In a preferred embodiment, the caller is not required to individually speak out the ".com" ".net" or ".org" suffixes of most email addresses. Rather, the voice recognition system is

FIG. 14 shows an address book feature of the present invention wherein an address book storage and recall menu is processed 490 and a storage and retrieval type is selected 500. One type of storage and retrieval type may be an audio-tagged email address 510 wherein the caller records a short audio description of the alphanumeric character string representing the email address. For example, the caller might store his grandmother's email address then tag it with an audio clip that plays "grandma." An added benefit to storing a short audio description is that the same description may be retrieved by voice recognition. Alternatively, previously stored email addresses may be reviewed by text-to-speech synthesis 530 of the alphanumeric character string. Should voice recognition not be used, DTMF signals 540 may be used to recall the previously entered email address.

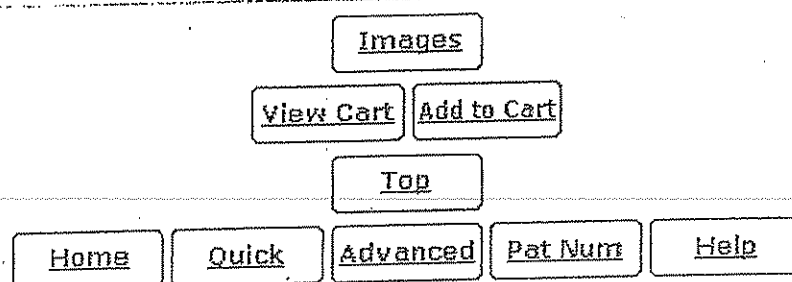
[G. 15 shows an alternative embodiment of the invention wherein the caller 20 transmits voice mail 550 to a wireless telephone 560. The wireless telephone 560 is capable of storing one or more predetermined alphanumeric strings which present one or more email addresses. In a preferred embodiment, a single send key 570 enables the user to immediately forward 580 the current voice mail message stored on his or her wireless telephone to a voice mail server 30 where it is further processed into an email attachment and ultimately delivered to a recipient 60.

FIG. 16 shows substantially the same method as described in FIG. 15 with the exception that the telecommunication device initially accepting the voice mail is a wireless voice pager 590.

will be seen that the objects set forth above, and those made apparent from the foregoing description, are efficiently attained and since certain changes may be made in the above construction without departing from the scope of the invention, it is intended that all matters contained in the foregoing description or shown in the accompanying drawings shall be interpreted as illustrative and not in a limiting sense.

is also to be understood that the following claims are intended to cover all of the generic and specific features of the invention herein described, and all statements of the scope of the invention which, as a matter of language, might be said fall therebetween. Now that the invention has been described,

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USPTO PATENT FULL-TEXT AND IMAGE DATABASE

Home	Quick	Advanced	Pat Num	Help
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View Cart		Add to Cart		
Images				

(1 of 1)

United States Patent
Baxter, Jr.

6,765,996
July 20, 2004

Audio file transmission method

Abstract

A computer implemented method of transmitting electronic voice messages including the steps of establishing a caller identity associated with a first telephone connection, recording a first audio clip from the first telephone connection, establishing an email target string, encapsulating the first audio clip, the caller identity and the email target string into a first email attachment, transmitting the first email attachment to a first email account associated with the email target string, broadcasting the first audio clip to a second telephone connection, prompting the second telephone connection for a reply recording, responsive to a record signal, recording a second audio clip from the second telephone connection, encapsulating the second audio clip and the caller identity into a second email attachment, and transmitting the second email attachment to a second email account associated with the caller identity.

Inventors: **Baxter, Jr.; John Francis** (Marco Island, FL)
Appl. No.: **09/682,431**
Filed: **August 31, 2001**

Related U.S. Patent Documents

<u>Application Number</u>	<u>Filing Date</u>	<u>Patent Number</u>	<u>Issue Date</u>
517415	Mar., 2000	6385306	

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Current International Class:

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H04L 12/58 (20060101); H04M 3/50 (20060101); H04M
3/53 (20060101); H04M 1/65 (20060101); H04Q 1/30 (20060101);
H04M 1/57 (20060101); H04Q 1/45 (20060101); H04M 001/64 ()
379/88.16-88.25,93.01,93.12,93.24,93.26-
93.28,114.01,114.1,114.13,142.04,142.05,142.06,335.01-335.1
370/351-356 709/201,203,206

Field of Search:

References Cited [Referenced By]**U.S. Patent Documents**

Primary Examiner: Foster; Roland G.

Attorney, Agent or Firm: Hopen; Anton J. Smith & Hopen, P.A.

Parent Case Text

RELATED APPLICATIONS

This application is a Continuation-in-Part and claims priority to U.S. patent application Ser. No. 09/517,415 filed Mar. 2, 2000, now U.S. Pat. No. 6,385,306 B1, incorporated herein by reference.

Claims

That is claimed is:

A computer implemented method of transmitting electronic voice messages comprising the steps of: establishing a caller identity associated with a first telephone connection; recording a first audio clip from the first telephone connection; establishing an email target string; encapsulating the first audio clip, the caller identity and the email target string into a first email attachment; transmitting the first email attachment to a first email account associated with the email target string; broadcasting the first audio clip to a second telephone connection; prompting the second telephone connection for reply recording; responsive to a record signal, recording a second audio clip from the second telephone connection; encapsulating the second audio clip and the caller identity into a second email attachment; appending the first audio clip and the second audio clip to form a message thread; transmitting the second email attachment to a second email account associated with the caller identity.

The method of claim 1 wherein a date/time stamp representing the recording time of the first audio clip is encapsulated to the first email attachment.

The method of claim 3 wherein the date/time stamp is encoded in alphanumeric characters appended to the text of the first email message.

The method of claim 3 wherein the date/time stamp is encoded as a synthesized speech audio file appended to the first audio clip of the first email attachment.

The method of claim 1 wherein the step of establishing the caller identity associated with the first telephone connection further comprises receiving a PASSWORD entry from the first telephone connection and associating the PASSWORD entry against a preexisting caller account.

The method of claim 6 wherein the step of receiving the PASSWORD entry comprises interpreting at least one DTMF signal responsive to the keying of buttons on a touch-tone telephone.

The method of claim 6 wherein the step of receiving the PASSWORD entry comprises interpreting at least one phanumeric character as spoken into the telephone.

The method of claim 1 wherein the step of establishing the caller identity associated with the first telephone connection further comprises the steps of receiving a call phrase, reducing the call phrase to a voice pattern, and associated the voice pattern against a preexisting caller account by a speech identification means.

2). The method of claim 1 wherein the step of establishing the email target string further comprises the steps of interpreting a plurality of DTMF signals responsive to the keying of buttons on a touch-tone telephone.

1. The method of claim 1 wherein the step of establishing the email target string further comprises the steps of receiving a plurality of individually spoken alphanumeric characters representative of the email target string and translating the spoken characters to their binary equivalent by a speech identification means.

2. The method of claim 1 further comprising the step of encrypting the first email attachment.

3. The method of claim 12 wherein the step of encrypting the first email attachment further comprises the steps of establishing a hash of the first email attachment and storing the hash in a secure storage means.

4. The method of claim 1 further comprising the step of storing the message thread in a sent items repository.

5. The method of claim 14 further comprising the step of storing the email target string in association with the email attachment in the sent items repository.

5. The method of claim 15 further comprising the step of storing a date-time stamp string in association with the email object string and email attachment in the sent items repository.

7. The method of claim 1 further comprising the steps of establishing a broadcast time and holding the email attachments a queue until the broadcast time.

Description

BACKGROUND OF INVENTION

United States Patent: 6765996

The present invention relates generally to a method of transmitting audio messages over a network, and more particularly, to a method of emulating voice messaging using electronic mail technology.

BACKGROUND OF THE INVENTION

Electronic mail ("email") has proliferated as a common method of communication.

Initial communications consisted of ASCII (American Standard Code for Information Interchange) text. In an ASCII file, each alphabetic, numeric, or special character is represented with a 7-bit binary number (a string of seven 0s or 1s). 128 possible characters are defined. However, basic ASCII text email messages have progressed to include graphics, audio and even video. Graphic images, digital audio files and digital video all require an encoding and decoding process when transmitted over the Internet. A user wishing to encode a voice message and send the message to a preselected email address had to accomplish several steps and have certain hardware and software equipment. The user would typically record their voice message on a computer using a sound card attached or integrated into the motherboard of a computer.

The voice message is a sequence of analog signals that are converted to digital signals by the audio card, using a microchip called an analog-to-digital converter (ADC). When sound is played, the digital signals are sent to the speakers where they are converted back to analog signals that generate varied sound. Audio files are usually compressed for storage or faster transmission. Audio files can be sent in short stand-alone segments—for example, as files in the WAV format. In order for users to receive sound in real-time for a multimedia effect, listening to music, or in order to take part in an audio or video conference, sound must be delivered as streaming sound. More advanced audio cards support wavetables, or precaptured tables of sound. The most popular audio file format today is MP3 (MPEG-1 Audio Layer-3).

Since these digital audio files reside on the hard drive of the user, the user would attach the file to an email sent to a selected recipient. When the file is attached, it might be transmitted in a standardized protocol such as Multi-Purpose Internet Mail Extensions (herein "MIME"). MIME is an extension of the original Internet e-mail protocol that lets people use the protocol to exchange different kinds of data files on the Internet: audio, video, images, application programs, and other kinds, as well as the ASCII handled in the original protocol, the Simple Mail Transport Protocol (SMTP). In 1991, Nathan Borenstein of Bellcore proposed to the Internet Engineering Task Force that SMTP be extended so that Internet (not mainly Web) clients and servers could recognize and handle other kinds of data than ASCII text. As a result, new file types were added to "mail" as a supported Internet Protocol file type.

Attempts have been made to develop unified messaging systems that link video, text, audio, document management and the like into a single system. However, such attempts have not provided a means to enable voice messaging to maintain continuity throughout a thread, store outbound voice communications, and provide a reply function equivalent to the simplicity of email replies. Furthermore, many unified messaging applications require expensive proprietary equipment. Herein typical SMTP email servers are inexpensive, well-developed and already employed by most medium or larger business entities.

Consequently, there is a need in the art for a method of transmitting an audio voice message to an email address without the need of a computer.

There is a further need in the art for a method of replying to an audio voice message without the need to key in a telephone number.

There is a further need in the art for a method maintaining a thread of voice mail correspondence.

There is a further need in the art for a means to store and validate the transmission and content of an outgoing voice message.

There is a further need in the art for a novel dual email and telephone extension identity for user to access voice messages from a telephone or computer using a common set of alphanumeric characters.

United States Patent: 6765996

Alternatively, the date and time may be synthesized as speech and appended to the audio clip.

Providing system security includes the steps of establishing the caller identity associated with the first telephone connection by receiving a password entry from the first telephone connection and associating the password entry against a preexisting caller account. Receiving the password entry may include interpreting at least one DTMF signal responsive to the keying of buttons on a touch-tone telephone.

Alternatively, the process may include the step of receiving the password entry by interpreting at least one alphanumeric character as spoken into the telephone. In another embodiment, the invention utilizes biometrics by receiving a predetermined call phrase, reducing the call phrase to a voice pattern, and associating the voice pattern against a preexisting caller account by speech identification means such as described by U.S. Pat. No. 5,608,784 of which specification is incorporated by reference.

The email target string may be established by the steps of interpreting a plurality of DTMF signals responsive to the keying of buttons on a touch-tone telephone.

Alternatively, the step may include receiving a plurality of individually spoken alphanumeric characters representative of the email target string and translating the spoken characters to their binary equivalent by a speech identification means.

With sensitive communications, it is preferred that the email attachment be encrypted. As an added security measure, an addition step may be employed by establishing a hash of the first email attachment and storing the hash in a secure storage means.

Another embodiment of the invention includes the steps of establishing a first SMTP email address, the first SMTP email address having a distinct prefix address and a domain address. For example, in a common email address format such as "2224848@uspto.gov" the prefix address would be "2224848" and the domain address would be "@uspto.gov." In the next step a primary telephone number is established. This number is preferably a toll-free number that is easily remembered with an alphabetic phrase correlated to the numerals of the number. For illustrative purposes, an example number might be "1-800-555-EMAIL." In the next step, an extension to the primary telephone number is established. The extension contains alphanumeric characters identical to the distinct prefix address. For example, the above-mentioned email address would have an extension of 2224848. The full dialing string to the account would be "1-800-555-EMAIL, ext. 2224848." A text-to-speech synthesizer established which is responsive to a call to the primary telephone number and extension wherein email messages sent to the first SMTP address are synthesized into computer-generated speech. A voice digitizing means is then established wherein reply messages spoken to the primary telephone number and extension are converted into an audio computer file and transmitted to a second SMTP address as an email attachment.

Callers that wish to retrieve their email from a regular telephone may be identified by businesses as a potential target for marketing new products and services. Furthermore, the caller is somewhat of a captive audience as the caller is seeking information of personal interest. An alternative embodiment of the invention includes the step of broadcasting a commercial to callers of the first SMTP email address. For example, the caller might hear "before we retrieve your messages, please listen to a brief message from our sponsor . . ." The caller might be presented with an option to pay for a subscription if they find the sponsor messages annoying or may enjoy the service free by their exposure to the advertisements. Another step may include surveying callers to the primary telephone number regarding caller demographics. The demographic may include age, gender, occupation, residence and the like. Using this information, demographically targeted commercials may be broadcast to callers according to survey results. To encourage callers to engage in the survey questions, an additional step of offering prize incentives for engaging in survey activities may be included. The prize incentives may be long distance telephone credits and, preferably, the assignment of those credits to a preexisting long distance calling card.

The objective of the current invention is to simplify the task of voice messaging and removing the tether of electronic equipment from the user. Accordingly, an alternative embodiment of the invention includes the steps of establishing a voice command zone. The voice command zone is a pre-designated area from which spoken commands and voice recordings are obtained. The zone may be established in an automobile passenger compartment, a human-inhabitable dwelling, or the like. An array of voice command instructions relating to the operation of an electronic message system

1 yet another embodiment of the invention, a caller identity is established with a telephone connection and an audio clip
2 is recorded from the first telephone connection. An email target string is established. The audio clip, caller identity and
3 mail target string are encapsulated into an email attachment. The email attachment is then transmitted to an email
4 account associated with the email target string and the email attachment is also stored in a sent items repository. This
5 embodiment of the invention serves a critical function, particularly in the business and legal communities of providing a
6 record of outbound communication. In the prior art, one business person may leave a message on a voice mail system, but
7 as no means to prove that message was left, much less the actual content of that message. The ability to produce a
8 record of outbound communication from one business to another serves the function to validate important communications
9 and messages were actually transmitted. It is preferred that along with the email attachment, the email target string and a
10 date-time stamp string are stored in association with the email attachment.

the communication is immediately transmitted, the recipient may find it buried below more recent communications. Furthermore, many message system provide immediate feedback with sound or an interface display when a new message is received. Accordingly, it would be advantageous to provide the ability to schedule the delivery of the communication. In this embodiment of the invention, a caller identity is associated with a telephone connection. An audio clip is recorded from the telephone connection. An email target string is established. The audio clip, caller identity and email target string are encapsulated into an email attachment. A broadcast time is established. The email attachment is then held in a queue until the broadcast time is reached wherein the email attachment is transmitted to an email account associated with the email target string. The email target string may be associated with a time zone associated with the physical location of the intended recipient. The broadcast time then may be automatically calculated relative to the time zone.

is another object of the present invention to provide a method of replying to an audio voice message without the need to
 ey in a telephone number.

is another object of the present invention to provide a means to store and validate the transmission and content of an outgoing voice message.

is another object of the present invention to provide a new means of delivering audio advertisements to a captive audience.

[tp://patft.uspto.gov/netacgi/nph-Parser?Sect1=PTO1&Sect2=HITOFF&d=PALL&p=1&u=%2Fnetathtml%2...](http://patft.uspto.gov/netacgi/nph-Parser?Sect1=PTO1&Sect2=HITOFF&d=PALL&p=1&u=%2Fnetathtml%2...) 1/4/2008

is another object of the present invention to provide untethered access to voice and email messaging using voice command zones.

is another object of the present invention to provide a means of scheduling the delivery of voice messages to enhance the impact on the recipient.

an advantage of the invention is that it incorporates well-developed SMTP technology to deliver voice messages globally without incurring long distance charges.

another advantage of the invention is that those wishing to send an audio voice message do not need to have any computer equipment.

another advantage of the invention is that recipients of voice messages no longer are required to find and dial the number of the originator, the recipient can easily reply to the voice message with a single click, button or spoken command.

another advantage of the invention is that the context of a voice message discussion may be maintained as a thread. Past comments may be accessed and referenced as needed.

another advantage of the invention is that outgoing voice messages may be easily saved in virtually any computer readable medium. Proprietary voice message systems are not required.

another advantage of the invention is that businesses may subrogate the costs of the messaging system infrastructure with demographically targeted advertising. Users unable to subscribe to the service can still have access paid for by advertising businesses.

another advantage of the invention is that delivery of voice messages may be coordinated to coincide with the schedule of the recipient so that the voice message is delivered at the optimum time.

these and other important objects, advantages, and features of the invention will become clear as this description proceeds.

the invention accordingly comprises the features of construction, combination of elements, and arrangement of parts that will be exemplified in the description set forth hereinafter and the scope of the invention will be indicated in the claims.

BRIEF DESCRIPTION OF DRAWINGS

For a fuller understanding of the nature and objects of the invention, reference should be made to the following detailed description, taken in connection with the accompanying drawings, in which:

G. 1 is a schematic view of the invention as generally disclosed.

G. 2 is a schematic view of an embodiment of the invention using a common SMTP and telephone extension string.

G. 3 is a schematic view of an embodiment of the invention incorporating demographically targeted advertising responsive to survey data.

G. 4 is a schematic view of an embodiment of the invention for hands-free voice messaging.

G. 5 is a schematic view of an embodiment of the invention for saving outbound voice messages.

G. 6 is a schematic view of an embodiment of the invention featuring scheduled message delivery.

DETAILED DESCRIPTION

FIG. 2 shows an embodiment of the invention that provides a common identity for both telephone and email communications while allowing access from either medium. An SMTP address is established 180 which contains an alphanumeric character string common to a telephone extension 200 established off a primary telephone number 190. Preferably, the alphanumeric characters are all integers, and thus easily entered on a touch-tone telephone. A text-to-speech synthesis means 210 reads text messages over the telephone and responses are digitized 220 for outgoing messaging over the telephone connection. Users are able to access the email account through standard POP3 mail connections as well.

FIG. 4, a voice command zone is established 300. This zone may be the interior of a vehicle 310 a hospital room 320, any type of human inhabitable dwellings. An array of voice command instructions 330 are established and received by microphone means 340. The microphones 350 may comprise two general types: omni-directional 360 and unidirectional 370. In the case of omni-directional microphones 360 sounds from in a 360 degree sweep are recorded. However, in the case of unidirectional microphones 370 a single point is recorded. Accordingly, an RF or IR transmitter may be placed on a person 380 sought to be recorded and an RF or IR acquisition means 390 dynamically tracks the location of the transmitter 380 and points to the unidirectional microphone 370 towards the appropriate target. A voice command initiates a responding SMTP command 400 to generate a new message or reply to an existing message. Audio recording is initiated responsive to a record command 410 and the audio recording is encapsulated 420 into an email attachment which is then transmitted 430 to a predetermined email address.

FIG. 6, a caller identity is established 30. An audio clip is recorded 40 and an email target string is established 50. A broadcast time is established 460. This time may be resolved automatically by calculating the time zone difference 470 between the sender and recipient of the message. The caller identity, audio clip and email target string are all encapsulated to an email attachment 70 and then transmitted to a predetermined email address 90 associated with the email target

ring at the established broadcast time.

will be seen that the objects set forth above, and those made apparent from the foregoing description, are efficiently attained and since certain changes may be made in the above construction without departing from the scope of the invention, it is intended that all matters contained in the foregoing description or shown in the accompanying drawings shall be interpreted as illustrative and not in a limiting sense.

is also to be understood that the following claims are intended to cover all of the generic and specific features of the invention herein described, and all statements of the scope of the invention which, as a matter of language, might be said fall therebetween. Now that the invention has been described,

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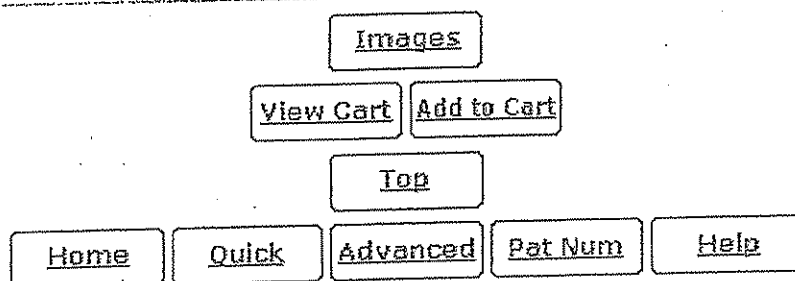


EXHIBIT "B"
ESCROW AGREEMENT

This **ESCROW AGREEMENT** ("Agreement"), dated as of April 3, 2009, by and between **CALYPSO WIRELESS, INC.**, a Delaware corporation ("Calypso"), **JIMMY WILLIAMSON, P.C.**, a Texas professional corporation ("Williamson PC"), **DRAGO DAIC**, an individual residing in Houston, Texas ("Daic" and together with Williamson PC, the "Daic Parties"), and **WILLIAMS KHERKHER HART BOUNDAS, L.L.P.**, a Texas limited liability partnership ("Escrow Agent").

WITNESSETH:

WHEREAS, Calypso and the Daic Parties have entered into that certain 2009 Patent Proceeds Assignment dated April 3, 2009, hereinafter known as the "Proceeds Agreement";

WHEREAS, pursuant to the terms of the Proceeds Agreement, Calypso and the Daic Parties have agreed to execute documentation as is reasonably required to add Daic as a plaintiff in Case No. 2:08-cv-TJW-CE; Calypso Wireless, Inc. v. T-Mobile USA, Inc.; In the U.S. District Court for the Eastern District of Texas (Marshall Div) (the "T-Mobile Litigation");

WHEREAS, Calypso and the Daic Parties have agreed to enter into this Agreement in the event there is a dispute between the parties regarding any proceeds from the T-Mobile Litigation; and

WHEREAS, Escrow Agent is willing to serve as escrow agent, and hold the Escrowed Funds (as hereafter defined) in accordance with the terms and conditions hereof;

NOW, THEREFORE, in consideration of the foregoing and other good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, the parties hereto agree as follows:

1. In the event of a disagreement between Calypso and the Daic Parties with respect to the distribution of any proceeds from the T-Mobile Litigation, Escrow Agent agrees to hold such proceeds (the "Escrowed Funds"), in escrow until such disagreement is resolved pursuant to Paragraph 8 of this Agreement.

2. Escrow Agent shall deposit the Escrowed Funds in direct obligations of, or obligations guaranteed by, the United States of America, or certificates of deposit or interest bearing accounts of any bank or trust company, incorporated under the laws of the United States of America or any state, which has combined capital and surplus of not less than \$50,000,000, or in commercial paper rated at least A1-P1 or better by Standard & Poors or Moody's Investor Services, all as selected by Escrow Agent in its sole discretion.

3. Any and all interest, dividends or other amounts earned as a result of investment of the Escrowed Funds (the "Earnings") shall become a portion of the Escrowed Funds and shall be

distributed to Calypso and the Daic Parties in accordance with the resolution of the disagreement pursuant to Paragraph 8 of this Agreement.

4. Escrow Agent shall be entitled to rely upon, and shall be fully protected from all liability, loss, cost, damage or expense in acting or omitting to act pursuant to, any instruction, order, judgment, certification, affidavit, demand, notice, opinion, instrument or other writing delivered to it hereunder without being required to determine the authenticity of such document, the correctness of any fact stated therein, the propriety of the service thereof or the capacity, identity or authority of any party purporting to sign or deliver such document.

5. The duties of Escrow Agent are only as herein specifically provided, and are purely ministerial in nature. Escrow Agent shall neither be responsible for, or under, nor chargeable with knowledge or, the terms and conditions of any other agreement, instrument or document in connection herewith, and shall be required to act in respect of the Escrowed Funds only as provided in this Agreement. This Agreement sets forth all the obligations of Escrow Agent with respect to any and all matters pertinent to the escrow contemplated hereunder and no additional obligations of Escrow Agent shall be implied from the terms of this Agreement or any other agreement. Escrow Agent shall incur no liability in connection with the discharge of its obligations under this Agreement or otherwise in connection therewith, except such liability as may arise from the willful misconduct or gross negligence of Escrow Agent.

6. Escrow Agent may consult with counsel of its choice, and shall not be liable for any action taken or omitted to be taken by Escrow Agent in accordance with the advice of such counsel.

7. Escrow Agent shall not be bound by any modification, cancellation or rescission of this Agreement unless in writing and signed by Escrow Agent.

8. Escrow Agent shall be permitted to dispose of the Escrowed Funds or any relevant portion thereof upon receipt of (i) written notice requesting such disposition from both Calypso and the Daic Parties, such notice to include the terms pursuant to which the Escrowed Funds shall be disposed or (ii) a certified copy of a final judgment of a court of competent jurisdiction providing for the disposition of the Escrowed Funds.

9. Escrow Agent is acting as a stakeholder only with respect to the Escrowed Funds. If any dispute arises as to whether Escrow Agent is obligated to deliver the Escrowed Funds or as to whom the Escrowed Funds are to be delivered or the amount thereof, Escrow Agent shall not be required to make any delivery, but in such event Escrow Agent may hold the Escrowed Funds until receipt by Escrow Agent of instructions in writing, signed by all parties which have, or claim to have, an interest in the Escrowed Funds, directing the disposition of the Escrowed Funds, or in the absence of such authorization, Escrow Agent may hold the Escrowed Funds until receipt of a certified copy of a final judgment of a court of competent jurisdiction providing for the disposition of the Escrowed Funds. Escrow Agent may require, as a condition to the disposition of the Escrowed Funds pursuant to written instructions, indemnification and/or opinions of counsel, in form and substance satisfactory to Escrow Agent, from each party providing such instructions. If such written instructions, indemnification and opinions are not received, or if the Escrow Agent is

uncertain as to which party or parties are entitled to the Escrowed Funds, Escrow Agent may either (i) hold the Escrowed Funds until receipt of (X) such written instructions and indemnification or (Y) a certified copy of a final judgment of a court of competent jurisdiction providing for the disposition of the Escrowed Funds, or (ii) deposit the Escrowed Funds in the registry of a court of competent jurisdiction; provided, however, that notwithstanding the foregoing, Escrow Agent may, but shall not be required to, institute legal proceedings of any kind.

10. Calypso and the Daic Parties agree to indemnify and to jointly and severally hold Escrow Agent harmless against and with respect to, any and all loss, liability, damage, or expense (including, without limitation, attorneys' fees and costs) that Escrow Agent may suffer or incur in connection therewith, except to the extent such loss, liability, damage or expense arises from the willful misconduct or gross negligence of Escrow Agent. Without in any way limiting the foregoing, Escrow Agent shall be reimbursed for the cost of all legal fees and costs incurred by it in acting as Escrow Agent hereunder. Escrow Agent shall have the right at any time and from time from time to charge, and reimburse itself from, the Escrowed Funds for all amounts to which it is entitled pursuant to this Agreement. Escrow Agent will provide notice to Calypso and the Daic Parties prior to any such reimbursement, which notice shall include the amount of reimbursement as well as a description of the services.

11. Escrow Agent and any successor escrow agent may at any time resign as such by delivering the Escrowed Funds to either (i) any successor escrow agent designated by all the parties hereto (other than Escrow Agent) in writing, or (ii) any court having competent jurisdiction. Upon its resignation and delivery of the Escrowed Funds as set forth in this paragraph, Escrow Agent shall be discharged of, and from, any and all further obligations arising in connection with the escrow contemplated by this Agreement.

12. This Agreement shall inure to the benefit of, and be binding upon, the parties hereto and their respective successors and assigns. Nothing in this Agreement, express or implied, shall give to anyone, other than the parties hereto and their respective permitted successors and assigns, any benefit, or any legal or equitable right, remedy or claim, under or in respect of this Agreement or the escrow contemplated hereby.

13. Any notice authorized or required to be given to a party hereto pursuant to this Agreement shall be deemed to have been given when hand-delivered, or when mailed by United States certified or registered mail, postage prepaid, return receipt requested addressed to the address set forth under the name of such party on the signature page of this Agreement. Any party may change its respective address by giving notice thereof in writing to the other parties hereto in the same manner as set forth above.

14. This Agreement shall be construed and enforced in accordance with the laws of the State of Texas. Each of the parties hereto agree to submit to personal jurisdiction and to waive any objection as to venue in the County of Harris, State of Texas. Service of process on any party hereto in any action arising out of or relating to this Agreement shall be effective if mailed to such party as set forth in the immediately preceding paragraph.

15. TO THE FULL EXTENT PERMITTED BY LAW, EACH OF THE PARTIES HERETO HEREBY KNOWINGLY, VOLUNTARILY AND INTENTIONALLY WAIVES THE RIGHT IT MAY HAVE TO A TRIAL BY JURY IN RESPECT TO ANY LITIGATION BASED HEREIN, OR ARISING OUT OF, UNDER OR IN CONNECTION WITH THIS AGREEMENT, OR ANY COURSE OF CONDUCT, COURSE OF DEALING, STATEMENTS (WHETHER ORAL OR WRITTEN) OR ACTIONS OF ANY PARTY HERETO. THIS PROVISION IS A MATERIAL INDUCEMENT FOR ESCROW AGENT ENTERING INTO THIS AGREEMENT.

16. This Agreement may be executed in any number of separate counterparts, each of which shall, collectively and separately, constitute one agreement.


17. All pronouns and any variations thereof shall be deemed to refer to the masculine, feminine or neuter, singular or plural, as the identity of the parties hereto taken within context may require.

18. The rights or Escrow Agent contained in this Agreement, including without limitation the right to indemnification, shall survive the resignation of Escrow Agent and the termination of the escrow contemplated.

[REMAINDER OF PAGE INTENTIONALLY LEFT BLANK]


IN WITNESS WHEREOF, the parties hereto have caused this Agreement to be duly executed as of the day and year first written above.

CALYPSO WIRELESS, INC.

By: 
Name: Richard S. Pattin
Title: President

Address: 21 Waterway Avenue, Suite 300
The Woodlands, Texas 77380
Attention: Richard Pattin
Facsimile No. 281-362-2704

JIMMY WILLIAMSON, P.C.

By: 
Cyndi M. Rusnak, Authorized Representative

Address: 4310 Yoakum Boulevard
Houston, Texas 77006
Facsimile No. 713-223-0001


DRAGO DAIC

Address: 11 Lake Sterling Gate Drive
Spring, Texas 77379
Facsimile No. (281) 444-4727

WILLIAMS KHERKHER HART BOUNDAS, L.L.P.

By: _____
Name: _____
Title: _____

Address: _____
Facsimile No. _____

EXHIBIT "C"
AMENDED AND RESTATED
PATENT MORTGAGE AND SECURITY AGREEMENT

THIS AMENDED AND RESTATED PATENT MORTGAGE AND SECURITY AGREEMENT ("Amended Security Agreement") is made as of April 3 , 2009 by and between Calypso Wireless, Inc., a Delaware corporation ("Debtor"), and Drago Daic, an individual residing in Houston, Texas ("Daic"), and Jimmy Williamson, P.C., a Texas professional corporation ("Williamson PC" and collectively with Daic, "Secured Party").

WHEREAS,

A. Debtor and Daic are parties to that certain Settlement Agreement dated April 3, 2008 (the "Original Settlement Agreement");

B. Debtor defaulted on its obligations under the Original Settlement Agreement and the parties hereto have entered into an Amended and Restated Settlement Agreement of even date herewith (the "Amended Settlement Agreement");

C. To secure Debtor's obligations under the Original Settlement Agreement as well as the various notes and other documents contemplated thereby, Debtor granted Secured Party certain liens and security interest pursuant to the Patent Mortgage and Security Agreement dated April 3, 2008 (the "Original Security Agreement"). As a result of the execution of the Amended Settlement Agreement, the parties have determined to amend and restate the Original Security Agreement through execution of this Amended Security Agreement;

D. Pursuant to the Amended Settlement Agreement, Debtor has agreed, among other things, to pay to Secured Party One Hundred Forty Six Million Fifty Thousand Six Hundred Forty Five Dollars (\$146,050,645) (including interest as of March 24, 2009), plus interest thereon after March 24, 2009, and to deliver to Secured Party 13,400,000 shares of common stock of Debtor (all obligations of Debtor under the Amended Settlement Agreement as well as the obligations of Debtor under the 2009 Patent Proceeds Assignment (as defined below) being referred to herein as the "Obligations"); and

E. Pursuant to the Amended Settlement Agreement, Debtor and Secured Party have executed that certain 2009 Patent Proceeds Assignment, dated of even date herewith (the "2009 Patent Proceeds Assignment"), pursuant to which Debtor has assigned to Secured Party certain proceeds under the ASNAP Patent (as defined below) and the Baxter Patents (as defined below); and

F. To secure Debtor's obligations under the Amended Settlement Agreement, including without limitation its obligations under the 2009 Patent Proceeds Assignment, this Amended Security Agreement continues the security interest, originally granted by Debtor pursuant to the Original Security Agreement, in certain patent rights owned by Debtor commonly known as "ASNAP", including, but not limited to (1) United States Patent No. US 6,680,923 BI, U.S. Patent Application Serial No. 11/040,482, and PCT Application No. PCT/US01/07528; (2) all patents and

applications throughout the world that claim priority to, directly or indirectly, or from which the foregoing claim priority, directly or indirectly; (3) all substitutions for and divisions, continuations, continuations-in-part, renewals, reissues, patent cooperation treaty applications, foreign applications, national phase entries, and extensions of the foregoing patents and applications throughout the world, and including patent applications and patents and applications throughout the world for like protection that have now been or may in the future be granted on the invention disclosed in any of the foregoing patents or applications, including without limitation, those obtained or permissible under past, present, and future laws and statutes; and (4) all right, title, and interest in and to any and all rights and causes of action based on, arising out of, related to, or on account of past, present, and future unauthorized use and/or infringement of any and all of the foregoing, including but not limited to all past, present, and future awards, damages, and remedies related thereto or arising therefrom (collectively, the "ASNA Patent");

G. To secure Debtor's obligations under the Amended Settlement Agreement, including without limitation its obligations under the 2009 Patent Proceeds Assignment, this Amended Security Agreement grants, and/or continues the grant of, a security interest in certain patent rights owned by Debtor commonly known as "Baxter", including, but not limited to (1) United States Patents No. 6,385,306, No. 6,765,996, No. 6,839,412 and No. 7,031,439; (2) all patents and applications throughout the world that claim priority to (directly or indirectly) the foregoing, or from which the foregoing claim priority (directly or indirectly); (3) all substitutions for and divisions, continuations, continuations-in-part, renewals, reissues, patent cooperation treaty applications, foreign applications, national phase entries, and extensions of the foregoing patents and applications throughout the world, and including patent applications and applications throughout the world for like protection that have now been or may in the future be granted on the invention disclosed in any of the foregoing patents or applications, including without limitation, those obtained or permissible under past, present, and future laws and statutes; and (4) all right, title, and interest in and to any and all rights and causes of action based on, arising out of, related to, or on account of past, present, and future unauthorized use and/or infringement of any and all of the foregoing, including but not limited to all past, present, and future awards, damages, and remedies related thereto or arising therefrom (collectively, the "Baxter Patents").

NOW, THEREFORE, the parties hereto agree as follows:

1. COLLATERAL ASSIGNMENT, PATENT MORTGAGE AND GRANT OF SECURITY INTEREST. As collateral security for the prompt and complete payment and performance of all of the Obligations, Debtor hereby grants a security interest, lien upon and mortgage to Secured Party, as collateral security, in and to Debtor's entire right, title and interest in, to and under the following (the "ASNA and Baxter Collateral"):

- (a) the ASNA Patent;
- (b) the Baxter Patents;

- (b) Any and all income, royalties, damages, claims, and payments now and hereafter due and payable on account of the ASNAP Patent and/or the Baxter Patents, including, without limitation, all claims for damages and payments by way of past, present and future infringement, misappropriation, or dilution of any of the rights arising from the ASNAP Patent and/or the Baxter Patents; and
- (c) All proceeds and products of the foregoing, including, without limitation, all payments under insurance or any indemnity or warranty payable in respect of any of the foregoing.

2. **COVENANTS AND WARRANTIES.** Debtor represents, warrants to, and covenants and agrees with Secured Party, as follows:

(a) Except as set forth in the 2009 Patent Proceeds Assignment or in this Amended Security Agreement, Debtor is and will continue to be the sole and exclusive owner of the entire legal and beneficial right, title and interest in and to the ASNAP Patent and the Baxter Patents, free and clear of any lien, charge, security interest or other encumbrance. Debtor will defend its right, title and interests in and to the ASNAP Patent and the Baxter Patents, and the ASNAP and Baxter Collateral against claims of any third parties;

(b) Performance of this Amended Security Agreement does not conflict with or result in a breach of any agreement to which Debtor is a party or by which Debtor is bound;

(c) Debtor shall take any and all such actions (including but not limited to institution and maintenance of suits, proceedings or actions) as are necessary and appropriate to properly maintain, protect, preserve, care for and enforce the ASNAP Patent, the Baxter Patents and the ASNAP and Baxter Collateral. However, Debtor shall not be required to incur costs or take other actions when, in the exercise of its reasonable business judgment, such costs or other actions would not be advisable. Without limiting the generality of the foregoing, Debtor shall pay when due such fees, taxes and other expenses which shall be incurred, which shall accrue, and/or which shall come due with respect to any of the ASNAP and Baxter Collateral, including but not limited to all prosecution, maintenance, and annuity fees related to the ASNAP Patent and/or the Baxter Patents. Debtor shall not abandon or dedicate to the public any of the ASNAP Patent, the Baxter Patents or related patent rights, nor do any act nor omit to do any act if such act or omission is of a character that tends to cause or contribute to the abandonment or dedication to the public of the ASNAP Patent, the Baxter Patents or related patent right or loss of or adverse effect on any rights in the ASNAP Patent and/or Baxter Patents or related patent right;

(d) Debtor shall in the future use statutory and other appropriate symbols, notices or legends of the ASNAP Patent and Baxter Patents pending or issued consistent with notice practice;

(e) Debtor shall do all things which are necessary and appropriate to insure that each licensee of any portion of the ASNAP Patent and/or the Baxter Patents, in its use of any or all of the ASNAP and Baxter Collateral in its business, shall: (a) comply fully with all applicable license agreements; and (b) satisfy and perform all the same obligations set forth herein (with respect to

Debtor's use of the ASNAP and Baxter Collateral) as fully as though such obligations were set forth with respect to such licensee's use of the licensed ASNAP and Baxter Collateral;

(f) In the event any infringement or unauthorized or improper use by any third party has been made and/or reasonably established by Debtor with respect to the ASNAP Patent, the Baxter Patents or the patent rights related thereto, Debtor shall promptly notify Secured Party and Debtor shall take action against such infringement or unauthorized or improper use. However, Debtor shall not be required to incur costs or take other actions when, in the exercise of its reasonable business judgment, such costs or other actions would not be advisable;

(g) Debtor hereby authorizes Secured Party to cause this Amended Security Agreement to be recorded with the United States Patent and Trademark Office and appropriate state agencies;

(h) During the term of this Amended Security Agreement, Debtor will not sell, transfer, assign or otherwise encumber any interest in the ASNAP and Baxter Collateral, except (i) licenses or other assignments granted by Debtor in the ordinary and normal course of its business or as set forth in this Amended Security Agreement or that do not, in the aggregate, impair the ASNAP and Baxter Collateral and, provided, further, that any such licenses or other assignments are made in a manner permitted by the 2009 Patent Proceeds Assignment and (ii) subject to Debtor's execution of appropriate documents, in form acceptable to Secured Party, to perfect or continue the perfection of Secured Party's interest in the ASNAP and Baxter Collateral as well as any other interest held by Secured Party, transfers to Affiliates (as defined in the 2009 Patent Proceeds Assignment) of Debtor; and

(i) Debtor shall not enter into any agreement that would materially impair or conflict with Debtor's obligations hereunder without Secured Party's prior written consent.

3. **SECURED PARTY'S RIGHTS.** Secured Party shall have the right, but not the obligation, to take, at Debtor's sole expense, any actions that Debtor is required under this Amended Security Agreement to take but which Debtor fails to take, after fifteen (15) days' notice to Debtor. Debtor shall reimburse and indemnify Secured Party for all reasonable costs and reasonable expenses incurred in the reasonable exercise of its rights under this provision.

4. **INSPECTION RIGHTS.** Debtor hereby grants to Secured Party and its employees, representatives and agents the right to visit, during reasonable hours upon prior reasonable and no less than three business days advance written notice to Debtor, any of Debtor's plants and facilities that manufacture, install or store products (or that have done so during the prior six-month period) utilizing, in whole or in part, any of the ASNAP and Baxter Collateral, and to inspect the products and quality control records relating thereto upon reasonable written notice to Debtor and as often as may be reasonably requested.

5. **FURTHER ASSURANCES; ATTORNEY IN FACT.**

(a) On a continuing basis for the purpose of perfecting and maintaining the perfection of Secured Party's security interest in the ASNAP and Baxter Collateral, Debtor will make, execute,

acknowledge and deliver, and file and record in the proper filing and recording places in the United States, all such instruments, including appropriate financing and continuation statements, and take all such action as may reasonably be necessary or advisable, or as reasonably requested by Secured Party, which Secured Party reasonably identifies as material to the operation of Debtor's business on an on-going basis or the value of the ASNAP and Baxter Collateral, and otherwise to carry out the intent and purposes of this Amended Security Agreement, or for assuring and confirming to Secured Party the grant or perfection of a security interest in the ASNAP and Baxter Collateral.

(b) Debtor hereby irrevocably appoints Secured Party as Debtor's attorney-in-fact, with full authority in the place and stead of Debtor and in the name of Debtor, from time to time in Secured Party's discretion, to take any action and to execute any instrument which Secured Party may reasonably deem necessary or advisable to accomplish the purposes of this Amended Security Agreement, including (i) to file, in its reasonable discretion, one or more financing or continuation statements and amendments thereto, relative to the ASNAP and Baxter Collateral without the signature of Debtor where permitted by law and (ii) to transfer the ASNAP and Baxter Collateral into the name of Secured Party or a third party to the extent permitted under the UCC provided that Secured Party agrees that it shall not exercise its powers as attorney-in-fact under this Section except upon the occurrence and during the continuation of an Event of Default (as hereinafter defined).

6. **EVENTS OF DEFAULT.** The occurrence of any of the following shall constitute an "Event of Default" under this Amended Security Agreement:

(a) Debtor breaches any warranty or agreement made by Debtor in this Amended Security Agreement or breaches any other provision of this Amended Security Agreement and, as to any breach that is capable of immediate cure, Debtor fails to cure such breach within thirty (30) days after written notice of such breach is given to Debtor (it being understood and agreed that no such notice and opportunity to cure shall be provided with respect to any breach that is not capable of immediate cure);

(b) Debtor fails to abide by the terms of the Amended Settlement Agreement; and

(c) Debtor fails to make any payments due under the terms of the 2009 Patent Proceeds Assignment or any other agreement executed pursuant to the terms of the Amended Settlement Agreement and fails to cure such monetary default within ten (10) days from the date of written notice of same, or if Debtor breaches any non-monetary provision of the 2009 Patent Proceeds Assignment or any other agreement executed pursuant to the terms of the Amended Settlement Agreement and fails to (i) cure such monetary default within twenty (20) days from the date of the written notice of same or (ii) if such non-monetary default is not of the nature than can reasonably be cured within twenty (20) days and promptly commences to cure the default within twenty (20) days and promptly completes such cure thereafter.

7. **REMEDIES.** Upon the occurrence and during the continuance of an Event of Default:

(a) Secured Party shall have the right to exercise all the remedies of a secured party under the UCC, including, without limitation, the right to require Debtor to assemble the ASNAP and Baxter Collateral and any tangible property in which Secured Party has a security interest and to make it available to Secured Party at a place designated by Secured Party. Secured Party shall have a nonexclusive, royalty free license or other right, solely pursuant to the provisions of this Section, to use, without charge, the ASNAP and Baxter Collateral, to the extent reasonably necessary to permit Secured Party to exercise its rights and remedies pursuant to this Section, including, without limitation, the completion of production, advertising for sale and the sale of the ASNAP and Baxter Collateral and, in connection with Secured Party's exercise of its rights hereunder, Debtor's rights under all licenses and all franchise agreements which constitute ASNAP and Baxter Collateral shall inure to the benefit of Secured Party. Debtor will pay any expenses (including reasonable attorneys' fees) incurred by Secured Party in connection with the exercise of any of Secured Party's rights hereunder, including, without limitation, any expense incurred in disposing of the ASNAP and Baxter Collateral. All of Secured Party's rights and remedies with respect to the ASNAP and Baxter Collateral shall be cumulative.

(b) Secured Party may notify any obligors with respect to the ASNAP and Baxter Collateral of Secured Party's security interest and that such obligors are to make payments directly to Secured Party. Secured Party may send this notice in Debtor's name or in Secured Party's name, and, at Secured Party's request, Debtor will join in Secured Party's notice, provide written confirmation of Secured Party's security interest and request that payment be sent to Secured Party. Secured Party may enforce this obligation by specific performance. Secured Party may collect all amounts due from such obligors. Upon and after notification by Secured Party to Debtor, Debtor shall hold any proceeds and collections of any of the ASNAP and Baxter Collateral in trust for Secured Party and shall not commingle such proceeds or collections with any other of Debtor's funds, and Debtor shall deliver all such proceeds to Secured Party immediately upon Debtor's receipt thereof in the identical form received and duly endorsed or assigned to Secured Party.

(c) Secured Party will give to Debtor reasonable notice of the time and place of any public sale of ASNAP and Baxter Collateral, or part thereof, or of the time after which any private sale or other intended disposition thereof is to be made. Such requirement of reasonable notice shall be met if such notice is delivered to the address of Debtor set forth in this Amended Security Agreement at least fifteen (15) calendar days before the time of the proposed sale or disposition. Any such sale may take place from Debtor's location or such other location as Secured Party may designate. Debtor shall remain liable for any deficiency in payment of the Indebtedness after any such sale.

(d) Nothing herein shall be construed as obligating Secured Party to take any of the foregoing actions at any time.

8. LICENSE AGREEMENT OBLIGATIONS; LIABILITY FOR USES OF PATENT COLLATERAL. Nothing in this Agreement shall relieve Debtor from any performance, in accordance with this Amended Security Agreement, of any covenant, agreement or obligation of Debtor under any license agreement now or hereafter in effect licensing any part of the ASNAP and Baxter Collateral, or from any liability to any licensee or licensor under any such license agreement

or to any other party, or shall impose any liability on Secured Party for any act or omission of Debtor in connection with any such license agreement. Debtor shall be liable for any and all uses or misuses of and the practice, manufacture, sales (or other transfers or dispositions) of any of the ASNAP and Baxter Collateral by Debtor and its Affiliates. Debtor shall also be exclusively liable for any claim, suit, loss, damage, expense or liability arising out of or in connection with the fault, negligence, acts or omissions of Debtor (regardless of whether such fault, negligence, acts or omissions occurred or occur prior to or after such license termination).

9. **INDEMNIFICATION.** Debtor shall indemnify and hold harmless Secured Party from and against, and shall pay to Secured Party on demand, any and all claims, actions, suits, judgments, penalties, losses, damages, costs, disbursements, expenses, obligations or liabilities of any kind or nature (except those resulting from Secured Party's action or inaction in the form of gross negligence or willful misconduct) arising in any way out of or in connection with the custody, preservation, use, practice, operation, sale, license (or other transfer or disposition) of the ASNAP and Baxter Collateral, any alleged infringement of the intellectual property rights of any third party, the production, marketing, provision, delivery and sale of the goods and services provided under or in connection with or using or practicing any of the ASNAP Patent, the Baxter Patents or the ASNAP and Baxter Collateral, the sale of, collection from or other realization upon any of the ASNAP and Baxter Collateral, the failure of Debtor to perform or observe any of the provisions hereof, or matters relating to any of the foregoing. Debtor shall make no claim against Secured Party for or in connection with the exercise or enforcement by Secured Party of any right or remedy granted to it hereunder, or any action taken or omitted to be taken by Secured Party hereunder (except for the gross negligence or willful misconduct of Secured Party).

10. **NOTICES.** Any notices or other communications required or permitted under, or otherwise in connection with this Amended Security Agreement, shall be in writing and shall be deemed to have been duly given (i) when delivered in person; (ii) upon confirmation of receipt when transmitted by facsimile transmission (but only if followed by transmittal by national overnight courier or hand delivery on the next Business Day; (iii) three (3) days following deposit in a regularly maintained receptacle for the United States mail, registered or certified, postage fully prepaid; or (iv) on the next Business Day if transmitted by national overnight courier, in each case to the address set forth below or at such other address as such party may have previously specified by notice provided in accordance herewith:

If to Debtor, to:

Calypso Wireless, Inc.
21 Waterway Avenue, Suite 300
The Woodlands, Texas 77380
Attention: Richard Pattin
Facsimile No. 281-362-2704

If to Secured Party, to:

Drago Daic
11 Lake Sterling Gate Drive
Spring, Texas 77379
Facsimile No. (281) 444-4727

and to:

Jimmy Williamson, P.C.
4310 Yoakum Boulevard
Houston, Texas 77006
Facsimile No. (713) 223-0001

with a copy to:

Boyar & Miller, P.C.
4265 San Felipe, Suite 1200
Houston, Texas 77027
Attention: Gary W. Miller
Facsimile No.: (713) 552-1758

11. **SUCCESSORS AND ASSIGNS.** This Amended Security Agreement and all obligations of Debtor hereunder shall be binding upon the successors and assigns of Debtor, and shall, together with the rights and remedies of Secured Party hereunder, inure to the benefit of Secured Party and their successors and assigns.

12. **REASSIGNMENT.** At such time as Debtor shall completely satisfy all of the obligations secured hereunder, Secured Party shall execute and deliver to Debtor all deeds, assignments and other instruments as may be necessary or proper to revest in Debtor full title to the property assigned hereunder, subject to any disposition thereof which may have been made by Secured Party pursuant hereto.

13. **NO WAIVER.** No failure or delay on the part of Secured Party, in the exercise of any power, right or privilege hereunder shall operate as a waiver thereof, nor shall any single or partial exercise thereof.

14. **ATTORNEYS' FEES.** If any action relating to this Amended Security Agreement is brought by either party hereto against the other party, the prevailing party shall be entitled to recover reasonable attorneys' fees, costs and disbursements.

15. **AMENDMENTS.** Except as otherwise provided herein, this Amended Security Agreement may be amended only by a written instrument signed by each of the parties hereto.

16. **COUNTERPARTS.** This Amended Security Agreement may be executed in any number of counterparts, each of which when so delivered shall be deemed an original, but all such counterparts shall constitute but one and the same instrument. Each such Amended Security Agreement shall become effective upon the execution of a counterpart hereof or thereof by each of the parties hereto and telephonic notification that such executed counterparts has been received by Debtor and Secured Party.

17. **GOVERNING LAW; JURISDICTION; JURY WAIVER.** This Amended Security Agreement shall be governed by, and construed in accordance with, the internal laws of the State of Texas, without regard to principles of conflicts of law. Debtor and Lender consent to the exclusive jurisdiction of any state or federal court located in Harris County, Texas.

18. **SEVERABILITY.** In the event any term or provision of this Amended Security Agreement shall for any reason be held to be invalid, illegal or unenforceable to any extent or in any respect, or otherwise determined to be of no effect, in any jurisdiction, such invalidity, illegality, unenforceability or determination shall affect only such term or provision, or part thereof, in only such jurisdiction. The parties agree they will negotiate in good faith to replace any provision so held invalid, illegal or unenforceable, or so determined, with a valid, enforceable and effective provision which is as similar as possible in substance and effect to the provision which is invalid, illegal, unenforceable or of no effect.

19. **AMENDMENT AND RESTATEMENT.** This Amended Security Agreement amends, restates and supersedes in all respects the Original Security Agreement.

[REMAINDER PAGE INTENTIONALLY LEFT BLANK]

IN WITNESS WHEREOF, the parties hereto have executed this Amended Security Agreement on the day and year first above written.

DEBTOR:

CALYPSO WIRELESS, INC.

By: 

Name: Kenneth S. Patton

Title: President

Date: 4-3-09

SECURED PARTY:


DRAGO DAIC

Date: 4-3-09

JIMMY WILLIAMSON, P.C.

By: 

Cyndi M. Rusnak, Authorized Representative

Date: April 3, 2009