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12/912,488	10/26/2010	Thomas F. Doyle	035380.00007	2152

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EXAMINER	
D AGOSTA, STEPHEN M	
ART UNIT	**PAPER NUMBER**
2643	

NOTIFICATION DATE	DELIVERY MODE
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Please find below and/or attached an Office communication concerning this application or proceeding.

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

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Office Action Summary	Application No. 12/912,488	Applicant(s) DOYLE, THOMAS F.	
	Examiner Stephen D'Agosta	Art Unit 2643	AIA (First Inventor to File) Status No

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

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTHS FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *4-9-14*.

☐ A declaration(s)/affidavit(s) under **37 CFR 1.130(b)** was/were filed on _____.

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

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

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

Disposition of Claims*

5)☒ Claim(s) *1-5 and 7-34* is/are pending in the application.

5a) Of the above claim(s) _____ is/are withdrawn from consideration.

6)☐ Claim(s) _____ is/are allowed.

7)☒ Claim(s) *1-5 and 7-34* is/are rejected.

8)☐ Claim(s) _____ is/are objected to.

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

* If any claims have been determined allowable, you may be eligible to benefit from the **Patent Prosecution Highway** program at a participating intellectual property office for the corresponding application. For more information, please see http://www.uspto.gov/patents/init_events/pph/index.jsp or send an inquiry to PPHfeedback@uspto.gov.

Application Papers

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

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

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

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

Priority under 35 U.S.C. § 119

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

Certified copies:

a)☐ All b)☐ Some** c)☐ None of the:

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

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

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

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

Attachment(s)

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

2) ☐ Information Disclosure Statement(s) (PTO/SB/08a and/or PTO/SB/08b) Paper No(s)/Mail Date _____.

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

4) ☐ Other: _____.

The present application is being examined under the pre-AIA first to invent provisions.

DETAILED ACTION

Response to Arguments

Applicant's arguments with respect to the claims have been considered but are moot because the arguments do not apply to any of the references being used in the current rejection.

1. The examiner has modified his previous rejection to address the claim amendments – eg. the examiner has shown where the prior art teaches use of multiple communications technologies AND the use of communications hardware being located in a vehicle/cab/trailer and alerting the user to communications from the dispatch center using first/second communications technologies..

2. The examiner notes that there can be multiple interpretations as to what "being out of the network" or "losing a connection" can mean. You can be considered out of the network if you a customer of AT&T in the USA but take a trip to a country where AT&T does not provide service. Conversely, you might be considered within the AT&T network but lose the connection by roaming into an area where the coverage stops OR is blocked (eg. farms or fields, mountainous areas, underground, parking garages, etc.).

Broadly interpreted, it can be ANY of these situations since the claims do not limit what the phrase(s) can/can't mean.

3. The examiner has previously pointed out that he believes the specification to provide structural designs for the "means for" claims (13, 17 and 19).

4. It is the examiner's position that a ***more favorable outcome may occur*** if the applicant amends as follows:

Each Independent claim + (claim 22 or 23) + claim 24

Claim Rejections - 35 USC § 103

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

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

Claim 1-5 and 7-34 rejected under 35 U.S.C. 103(a) as being unpatentable over Hays and further in view of Smith, Umstetter and {Moore or Wortham}.

As per **claims 1, 3, 5, 7-13, 15 and 17-34,** Hays teaches a wireless communications apparatus (Abstract teaches calling device and mobile unit/called device and cellular/paging systems) configured to alert a user of a vehicle when out of network that a communication is desired (Abstract and pages 2-4 show that a called device can be connected via a first network and/or if *out of range*, then a second network can be used to indicate communication is wanted (eg. paging can be used to alert the user, etc.), the system comprising:

a first wireless communication device available to the user of a vehicle (mobile unit in figure 1) comprising a display indicator (figure 1 shows a mobile phone which inherently have display(s) for indicators, eg. incoming call, missed call, email waiting, SMS message waiting, battery level, signal strength level, service provider, wallpaper, etc.);

a second wireless communication device coupled to a network (figure 1 shows calling device #12);

a data link connecting the first communication device and the second communication device (figure 1 shows multiple links connecting to mobile unit via either cellular or paging networks);

a first wireless communication network connecting the first wireless communication device to the “network switching” center (figure 1 shows links connecting to the MTSO and UMS "centers"); and

a second wireless communication network connecting the second wireless communication device to the dispatch center, wherein when the first wireless communication device is outside of the first wireless communication network, the dispatcher can alert the user of the first wireless communication device that the communication is waiting or wanted by causing the second wireless communication device to send a signal to the first wireless communication device causing the display indicator to indicate said alert AND ~~when the first wireless communication device loses connection with the dispatch center over the first wireless communication network~~, via receive, a display signal generated by the second wireless communication device ~~over the wired data link~~ in response to receipt of a communication request signal originating from the dispatch center when the first wireless communication device loses a connection with the dispatch center over the first wireless communication network, wherein the display signal is configured to cause causing the display indicator to indicate an alert; (Abstract and pages 2-4 show that a called device can be connected via a first network and/or if *out of range*, then a second network can be used (eg. paging). NOTE that Hayes clearly teaches an out of range situation and alerting of the user device that said out of range situation exists and that the user can communicate/handoff to another system and even receive the stored message at a later time);

but is silent on a dispatch center being used and forwarding/transmitting a message from one mobile to another for two-way communications (eg. Hays teaches more of a page/data message than voice) AND the first wireless device located in the cab portion and coupled, receive via a wired data link (to second wireless communication system) and a satellite communications device located in the trailer portion.

The use of a manned dispatch center is well known and can also be viewed as a more “manual” automated switching network such as Hays’ MTSO/UMS components. Also the Applicant’s Admitted Prior Art (AAPA) discloses network communications using a manned dispatch center for truck or delivery vehicles (see spec. Para #'s 2-3).

Furthermore, the AAPA teaches the communication can be voice or data over the wireless network (Para #2)

The concept of mobile-to-mobile "call relay" is well known in cellular, WLAN and short-range communication.

Since Hays clearly teaches a dual-mode transceiver device (figure 1 #19, also figure 2, paging and cellular supported), the examiner need only put forth art that teaches communicating with a vehicle (trailer), eg. in a relay connection and/or a direct connection. As far as relaying communications as based on a "cab and trailer" configuration, the examiner notes that this is a DESIGN CHOICE since the location of a transmitter/receiver is not novel unto itself (eg. there is no reason why a transceiver must be located in either the cab or trailer or both when a trunk, engine compartment or "other" location would suffice as well). The examiner puts forth the following to show different configurations/design choices:

a. **Moore** shows a relay between a police officer's transceiver, the police car "relay" and a cell tower which can connect back to the police station (see figures 1-5), note in figure 2 the "wired connection(s)" that exist and would connect to/from the different components be they located proximate or separated in the vehicle.

b. **Wortham ('689 patent)** clearly shows a truck (cab and trailer) with a cellular transceiver located on at least the trailer of the truck (see figure 1). Figure 2 shows the actual cellular transceiver system which can act as a "relay" since it can both receive and transmit data/voice. Note that one skilled can use either WIRED or wireless links between the cab and trailer AND that many different types of communications are supported to include CELLUAR, ***SATELLITE,*** etc. (C3, L29-46).

Hence the examiner has shown that a design choice exists for both car/truck implementations and the "relay or second communications device" can be located anywhere in a vehicle (trailer, engine, hood/car top, trunk, etc). NOTE that the "relay" capability will allow a connection even when the user roams too far away from the coverage of the "primary/cellular" limit and thusly reads on the applicant's limitation of "if/when losing a connection to the dispatch center".

Smith teaches a similar design as Hays in which a mobile device can be contacted via multiple different wireless/wired networks, especially if the device is out of range of a "first" network (Abstract, figure 1, Para's #10-11). Smith alludes to ***Satellite communications*** not being required since cellular provides ubiquitous coverage, ***hence satellite communications are taught.***

Clearly the prior art teaches the concepts of relays/repeaters and use of two different wireless network protocols (eg. cellular, bluetooth, WLAN, etc) whereby a relay/repeater (or dual mode device) can receive data from one network and translate/forward it to another network and ultimately on to another end-user.

Umstetter teaches relaying two-way ***voice*** communications (see Abstract and figure 1b whereby a cordless user connects through the PSTN to another phone user). Hence, the design can utilize one-or-two wireless networks in order to convey data as well as convey voice data (instead of only paging/text messages).

Note that Hays/Wortham/Moore teach systems that include coupling to/from multiple communication systems but Wortham (fig. 2) and/or Moore (fig. 5) teach wired coupling/buses for communicating to/from multiple communication systems, which reads on the claim. Furthermore, one skilled understands that a device can have multiple transceivers which are connected via wired coupling (within said device) via a bus (see Hays, Umstetter). Similarly, just as on dual mode cell phones, typically an indication of the TYPE of transceiver/network can be identified (eg. GSM or CDMA network indication can be displayed and/or BLUETOOTH or WLAN indicator, etc.). For dual mode devices, an automatic handoff is initiated when the one transceiver's signal drops below a threshold level and the device switches to the second transceiver. In the prior art above, an automatic handoff can occur whereby the user would be alerted by either a display or audio sound (along with the fact that dispatch communications will automatically switch to the second system - eg. in cellular the handoff is automatic and no manual interaction from the user is required).

It would have been obvious to one skilled in the art at the time of the invention to modify Hays, such that a dispatch service is supported and call relay/forwarding with satellite communications supported, to provide means for forwarding a call via different

communications technologies if a certain mobile unit is out of range when a dispatcher needs to communicate with said certain mobile/user.

With further regard to claims 8, 10, 12, 20 and 22, the examiner notes that the prior art teach at least verbal communication for confirmation of received delivery (See Moore) and one skilled understands that auto-reply messages can be sent to confirm delivery (See Smith, Para #17) OR even an ACK/NAK protocol can be used (such as TCP/IP) to ensure delivery of messages/packets (see Wortham, C5, L1-14).

With further regard to claims 23, 25, 27, 29, 31 and 33, the examiner notes that the prior art teach multiple communication systems whereby different ranges of coverage are provided (some smaller, some larger), such as short-range, cellular and satellite.

With further regard to claims 24, 26, 28, 30, 32 and 34, the examiner notes that the prior art teach sending/receiving data messages (eg. data, verbal, etc.) that would include dispatch data for instructing the person as to communication systems to use, etc..

As per **claims 2, 4, 14 and 16,** the combo teaches claim 1/3/13/15, wherein the display indicator is selected from the group of indicators consisting of: a light, a vibration, a text display, or a ring tone (Hays teaches a “alerting message" being sent to the phone/pager, which reads on at least a vibration and/or display, eg. Missed Page indicator, as is well known in the art. Similarly, mobile phones can ring, vibrate, light up and display a message).

Allowable Subject Matter

It is the examiner’s position that a more favorable outcome may occur if the applicant amends as follows:

Each Independent claim + (claim 22 or 23) + claim 24

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Stephen D'Agosta whose telephone number is (571)272-7862. The examiner can normally be reached on M-F, 8am to 5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jinsong Hu can be reached on 571-272-3965. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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

/Stephen D'Agosta/
Primary Examiner, Art Unit 2643