

EXHIBIT D



(12) **United States Patent**
Beyer, Jr. et al.

(10) **Patent No.:** **US 10,299,100 B2**
 (45) **Date of Patent:** **May 21, 2019**

- (54) **METHOD TO PROVIDE AD HOC AND PASSWORD PROTECTED DIGITAL AND VOICE NETWORKS**
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- (56) **References Cited**
- U.S. PATENT DOCUMENTS
- 5,325,310 A 6/1994 Johnson et al.
- 5,555,286 A 9/1996 Tendler
- (Continued)
- FOREIGN PATENT DOCUMENTS
- EP 1148754 A2 10/2001
- EP 1655888 A1 5/2006
- (Continued)

(*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 0 days.

- OTHER PUBLICATIONS
- Batista, E., "Your Boss May Know Where You Are," Wired News, May 31, 2002; 2pgs.
- (Continued)

(21) Appl. No.: **15/722,660**
 (22) Filed: **Oct. 2, 2017**

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(65) **Prior Publication Data**
 US 2018/0027111 A1 Jan. 25, 2018

(57) **ABSTRACT**

Related U.S. Application Data

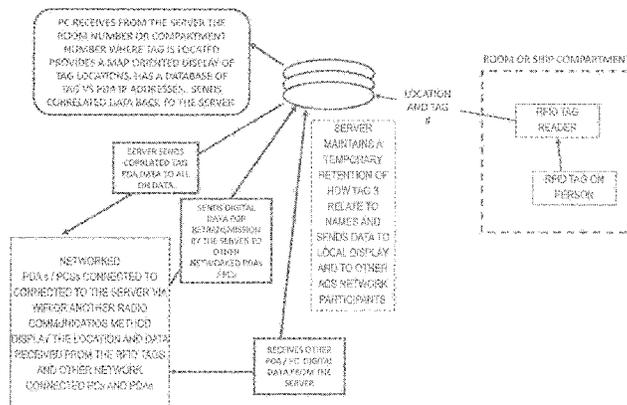
(63) Continuation of application No. 15/469,469, filed on Mar. 24, 2017, which is a continuation of application (Continued)

A method and system includes the ability for individuals to set up an ad hoc digital and voice network easily and rapidly to allow users to coordinate their activities by eliminating the need for pre-entry of data into a web or identifying others by name, phone numbers or email. This method is especially useful for police, fire fighters, military, first responders or other emergency situations for coordinating different organizations at the scene of a disaster to elevate conventional communication problems either up and down the chain of command or cross communication between different emergency units. The method and system provides that the users are only required to enter a specific Server IP address and an ad hoc event name, a password and perhaps the name of the particular unit.

- (51) **Int. Cl.**
H04W 4/90 (2018.01)
H04M 1/725 (2006.01)
 (Continued)
- (52) **U.S. Cl.**
 CPC **H04W 4/90** (2018.02); **G01S 19/17** (2013.01); **G06F 3/0482** (2013.01);
 (Continued)
- (58) **Field of Classification Search**
 CPC H04W 4/02
 See application file for complete search history.

31 Claims, 7 Drawing Sheets

ENABLING NON RFID EQUIPPED PDA PHONES TO RECEIVE RFID TAG DATA.



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(56) **References Cited**

FOREIGN PATENT DOCUMENTS

WO WO-2008027891 A2 3/2008
 WO WO-2008/118878 A2 10/2008

OTHER PUBLICATIONS

Benefon ESC! GSM + GPS Personal Navigation Phone, 1999, Benefon Oyj, Salo, Finland; 4pgs.

Edlund, T. and Ciber, S., "Mobile Services for Truck Drivers," Master Thesis in Mobile Informatics, IT University of Goleborg, Sweden; 2003; 50pgs.

Garmin rino 110 2-way Radio & Personal Navigator; Owner's Manual and Reference Guide; Apr. 2003; 88pgs.

Gate5, "Mobile Community Solution: Context-sensitive Application Suite for Mobile Communities," 2002; 3pgs.

Gate5, "Mobile Guide Solution: Context-sensitive Applications for PDA-based Mobile City and Travel Guides," 2002; 4pgs.

Int'l Preliminary Report on Patentability (IPRP); for Int'l Patent App. No. PCT/JP2004/000250 dated Jul. 5, 2005; 4pgs.

Kim, R., "Find Friends by Cell Phone/Loop! Application's GPS Program can Beam Map Location," SFGate; Nov. 14, 2006; 2pgs. *Life360's Rule 50(a) Motion for Judgment as a Matter of Law; AGIS, Inc. v. Life360, Inc.* (S.D. FL); Mar. 12, 2015; 27pgs.

LocatioNet LBS Applications: MyMap description web page, published before 2004 upon information and belief; 13pgs.

LocatioNet Press Release: "LocatioNet Releases Ground Breaking Mass Market LBS Application Suite—LocatioNet MyMap," Mobile Location Services Congress; May 6, 2003; 2pgs.

Luna, L., "This Man Knows You Live . . . and Work and Play," *Wireless Review*; Sep. 1, 2002; pp. 24-32.

Meggers, J. and Sang-Bum Parl, A., "A Multimedia Communication Architecture for Handheld Devices," IEEE Paper 0-7803-4872-9/98, Sep. 8-11, 1998; pp. 1245-1249.

Memory Map Remote Tracking, available on the Internet at <https://web.archive.org/web/20060202161013/http://memory-map.com/>; 2pgs.

Plaintiff Advanced Ground Information Systems, Inc.'s Motions in Limine; *AGIS, Inc. v. Life360, Inc.* (S.D. FL); Feb. 19, 2015; 54pgs. PRNewswire, "Trimble GPS Technology Enables Seiko Epson; Communication Device and Wireless Data Service," accessed on the internet at: <http://www.printhis.clickability.com/pt/cpt?expire=&title=Trimble+GPS+Technology+Enables+Seiko+Epson+Communication+Device+and+Wireless+Data+S...>; downloaded Jun. 16, 2016; 4pgs.

The Gate5 system, which, upon information and belief, was sold and/or publicly used within the U.S. prior to 2004 and at least as early as 2002.

The LocatioNet system which, upon information and belief, was sold and/or publicly used within the U.S. prior to 2004 and at least as early as 2003; 6pgs.

Östman, L., "A Study of Location-Based Services Including a Design and Implementation of an Enhanced Friend Finder Client with Mapping Capabilities," Lulea Tekniska Univeritet; Aug. 31, 2001; 63pgs.

Batayneh, Fahd A., Location Management in Wireless Data Networks. Apr. 21, 2006, 24pgs. Available on the Internet at https://www.cse.wustl.edu/~jain/cse574-06/ftp/wireless_location/index.html.

DIGI, Remote Cellular TCP/IP to Rockwell Ethernet and Serial Devices. 37pgs.

IBM, Transmission Control Protocol / Internet Protocol. 2pgs. Available on the Internet at www.ibm.com/support/knowledgecenter/en/ssw_aix_61/com.ibm.aix.networkcomm/tcpip_intro.htm.

Kutscher, Dirk et al. Drive-thru Internet: IEEE 802.11b for "Automobile" Users. IEEE Infocom, Mar. 7, 2004. 12pgs.

Microsoft Corporation. Communication Services and Networking

Ramjee, et al. IP-Based Access Network Infrastructure for Next-Generation Wireless Data Networks. IEEE Personal Communications, Aug. 2000. 8 pgs.

Toppila, Pekka. TCP/IP in Cellular Mobile Environment. 1999, 7pgs.

Zetter, Kim. How Attackers can Use Radio Signals and Mobile Phones to Steal Protected Data. *Wired*, Nov. 3, 2004 5pgs. Available on the Internet at www.wired.com/2014/11/airhopper-hack/.

"911 and E911 Services," Federal Communications Commission, updated Mar. 1, 2018, available at <https://www.fcc.gov/general/9-1-1-and-e9-1-1-services> (last visited May 7, 2018) (6 pages).

"AGIS Introduces Landmark Mobile Networking," dated Jun. 18, 2007, available as of Aug. 7, 2007 according to Wayback Machine Internet Archive Record, obtained from: https://web.archive.org/web/20070807202449/http://www.agisinc.com/AGIS_announcement.pdf (3 pages).

"AGIS Mobile Communication & Collaboration Software Being Used by Naval Coastal Warfare Squadron," available as of Aug. 7, 2007 according to Wayback Machine Internet Archive Record, obtained from: https://web.archive.org/web/20070807202431/http://www.agisinc.com/AGIS_US_Navy_photofeature.pdf (2 pages).

"BuddySpace Downloads," dated May 1, 2007, publication date unknown, available at: <http://projects.kmi.open.ac.uk/buddyspace/downloads/downloads.html> (3 pages).

"Cellular Mobile Pricing Structures and Trends," Organisation for Economic Co-operation and Development, Working Party on Telecommunications and Information Service Policies, May 16, 2000 (103 pages).

"Email," Wikipedia, <https://en.wikipedia.org/wiki/Email> (last visited May 10, 2018) (19 pages).

"Fact Sheet: FCC Wireless 911 Requirements," Federal Communications Commission, Jan. 2001, available at https://transition.fcc.gov/pshs/services/911-services/enhanced911/archives/factsheet_requirements_012001.pdf (4 pages).

"Force XXI Battle Command, Brigade and Below (FBCB2)," available as of Feb. 4, 2017 according to Wayback Machine Internet Archive Record, obtained from: <https://web.archive.org/web/20170204113146/http://www.dote.osd.mil/pub/reports/FY1999/pdf/army/99fbc2.pdf> (4 pages).

"Frequently Asked Questions," BuddySpace.org, available as of Apr. 23, 2007 according to Wayback Machine Internet Archive Record, obtained from: <https://web.archive.org/web/20070423184018/http://kmi.open.ac.uk:80/projects/buddyspace/faq.html> (11 pages).

"Frequently Asked Questions," BuddySpace.org, available as of Feb. 3, 2004 according to Wayback Machine Internet Archive Record, obtained from: <https://web.archive.org/web/20040204032758/http://kmi.open.ac.uk:80/projects/buddyspace/faq.html> (4 pages).

"History of Mobile Phones," Wikipedia, https://en.wikipedia.org/wiki/History_of_Mobile_phones (last visited May 10, 2018) (14 pages).

"How It Works: The Navizon Wireless Positioning System," Navizon.com, available as of Feb. 19, 2006 according to Wayback Machine Internet Archive Record, obtained from: <https://web.archive.org/web/20060219075647/http://www.navizon.com:80/FullFeatures.htm> (8 pages).

"Introduction & Philosophy: Presence in a Nutshell," publication date unknown, available at: <http://projects.kmi.open.ac.uk/buddyspace/intro-philosophy.html> (3 pages).

"MMode Features: Find Friends," AT&T Wireless, available as of Jun. 18, 2003 according to Wayback Machine Internet Archive Record, obtained from: <https://web.archive.org/20030618175223/http://www.attwireless.com:80/mmode/features/findit/FindFriends/> (2 pages).

"Navizon: The first Peer-to-Peer Wireless Positioning System that successfully blends GPS +WiFi + Cellular signals together into one accurate and powerful Mobile Geo-Location System," Navizon.com, available as of Dec. 18, 2005 according to Wayback Machine Internet Archive Record, obtained from: <https://web.archive.org/web/20051218105454/http://www.navizon.com:80/index.htm> (2 pages).

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