

EXHIBIT 4



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

(10) **Patent No.:** **US 9,749,829 B2**
 (45) **Date of Patent:** ***Aug. 29, 2017**

(54) **METHOD TO PROVIDE AD HOC AND PASSWORD PROTECTED DIGITAL AND VOICE NETWORKS**

(58) **Field of Classification Search**
 CPC H04W 4/02
 (Continued)

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

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This patent is subject to a terminal dis-
 claimer.

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(Continued)

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Primary Examiner — Omoniyi Obayanju

(65) **Prior Publication Data**

(74) *Attorney, Agent, or Firm* — Goodwin Procter LLP

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(57) **ABSTRACT**

Related U.S. Application Data

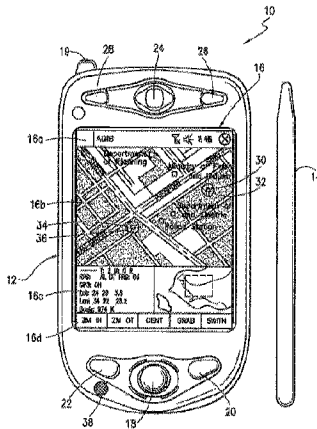
A method and system includes the ability for individuals to
 set up an ad hoc digital and voice network easily and rapidly
 to allow users to coordinate their activities by eliminating
 the need for pre-entry of data into a web or identifying others
 by name, phone numbers or email. This method is especially
 useful for police, fire fighters, military, first responders or
 other emergency situations for coordinating different organiza-
 tions at the scene of a disaster to elevate conventional
 communication problems either up and down the chain of
 command or cross communication between different emer-
 gency 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.

(63) Continuation of application No. **14/529,978**, filed on
 Oct. 31, 2014, now Pat. No. 9,467,838, which is a
 (Continued)

(51) **Int. Cl.**
H04W 4/22 (2009.01)
H04W 76/00 (2009.01)
 (Continued)

(52) **U.S. Cl.**
 CPC **H04W 4/22** (2013.01); **G06F 3/0482**
 (2013.01); **G06F 3/04842** (2013.01);
 (Continued)

68 Claims, 7 Drawing Sheets



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Related U.S. Application Data

continuation-in-part of application No. 14/027,410, filed on Sep. 16, 2013, now Pat. No. 8,880,042, which is a continuation of application No. 13/751,453, filed on Jan. 28, 2013, now Pat. No. 8,538,393, which is a continuation-in-part of application No. 12/761,533, filed on Apr. 16, 2010, now Pat. No. 8,364,129, which is a continuation-in-part of application No. 11/615,472, filed on Dec. 22, 2006, now Pat. No. 8,126,441, which is a continuation-in-part of application No. 11/308,648, filed on Apr. 17, 2006, now Pat. No. 7,630,724, which is a continuation-in-part of application No. 10/711,490, filed on Sep. 21, 2004, now Pat. No. 7,031,728.

- (51) **Int. Cl.**
 - H04M 1/725* (2006.01)
 - H04W 68/00* (2009.01)
 - H04W 4/02* (2009.01)
 - H04M 1/2745* (2006.01)
 - H04W 4/08* (2009.01)
 - H04W 64/00* (2009.01)
 - H04W 84/18* (2009.01)
 - H04W 12/08* (2009.01)
 - H04W 12/02* (2009.01)
 - G06F 3/0482* (2013.01)
 - G06F 3/0484* (2013.01)
 - H04L 29/06* (2006.01)
 - H04L 29/08* (2006.01)
 - H04W 12/06* (2009.01)
 - H04W 68/04* (2009.01)
 - H04W 76/02* (2009.01)
 - H04W 4/10* (2009.01)
 - H04W 12/04* (2009.01)
 - H04L 29/12* (2006.01)
 - H04M 7/00* (2006.01)
 - H04W 84/04* (2009.01)
- (52) **U.S. Cl.**
 - CPC *H04L 61/605* (2013.01); *H04L 63/065* (2013.01); *H04L 63/083* (2013.01); *H04L 63/104* (2013.01); *H04L 67/18* (2013.01); *H04M 1/27455* (2013.01); *H04M 1/72519* (2013.01); *H04M 1/72536* (2013.01); *H04M 1/72547* (2013.01); *H04M 1/72572* (2013.01); *H04M 1/72583* (2013.01); *H04W 4/02* (2013.01); *H04W 4/021* (2013.01); *H04W 4/023* (2013.01); *H04W 4/026* (2013.01); *H04W 4/027* (2013.01); *H04W 4/08* (2013.01); *H04W 12/02* (2013.01); *H04W 12/06* (2013.01); *H04W 12/08* (2013.01); *H04W 64/00* (2013.01); *H04W 68/00* (2013.01); *H04W 68/04* (2013.01); *H04W 76/007* (2013.01); *H04W 84/18* (2013.01); *H04L 61/2007* (2013.01); *H04M 1/72525* (2013.01); *H04M 7/006* (2013.01); *H04M 2250/10* (2013.01); *H04M 2250/22* (2013.01); *H04M 2250/62* (2013.01); *H04W 4/10* (2013.01); *H04W 12/04* (2013.01); *H04W 76/005* (2013.01); *H04W 76/021* (2013.01); *H04W 84/042* (2013.01)
- (58) **Field of Classification Search**
 - USPC 455/404.2, 456.1
 - See application file for complete search history.

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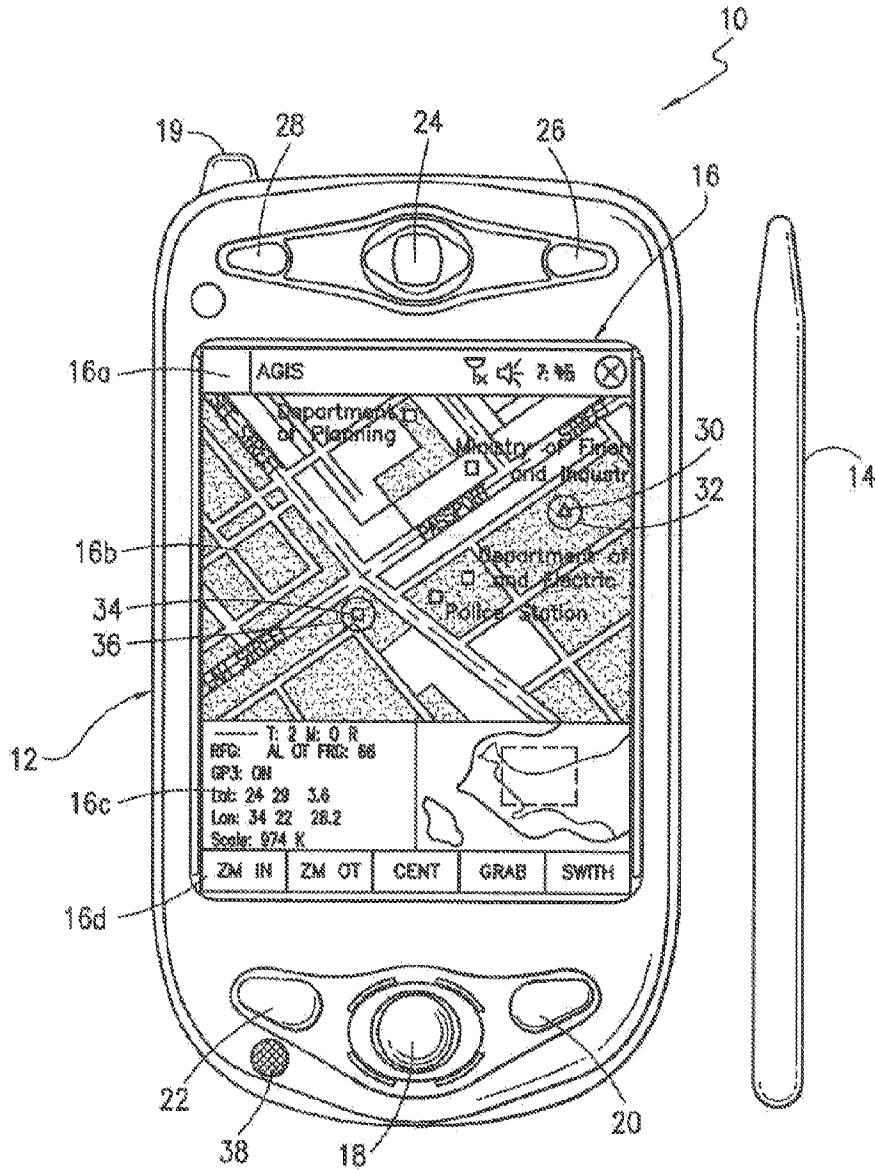
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