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**Dabbs, III et al.**

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(54) **METHOD AND APPARATUS FOR EFFICIENT AND DETERMINISTIC GROUP ALERTING**

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This patent is subject to a terminal disclaimer.

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

(52) **U.S. Cl.** ..... **370/349; 455/519; 455/404.1; 455/410; 340/7.46; 340/539.1; 340/442; 340/445; 340/441; 370/390; 370/310; 709/206; 709/207**

(58) **Field of Classification Search** ..... **455/404.1, 455/410, 519; 370/349, 310, 390; 340/7.46, 340/539.1, 442, 441, 445; 709/206, 207**

See application file for complete search history.

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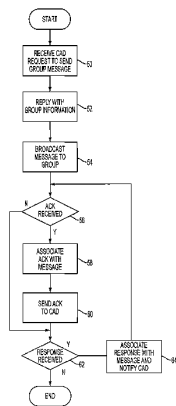
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(57) **ABSTRACT**

A system and method are provided for reliable, wireless group alerting in a system having a database, switch, wireless network, and a plurality of intelligent mobile receivers, and preferably employing a modified two-way paging based on ReFLEX™ protocol information service (IS) messages and a novel ALOHA command for multicast acknowledgement from mobile receivers. An encrypted message is broadcast to a group address and received by a selected number of the mobile receivers. The network replies to the sender with detailed information about the individual members in the alert group. Each of the mobile receivers in the group then acknowledges the common message back to the system, decrypts the message, displays it to the user, and allows the user to respond. The system employs centralized management to simplify the roles of the mobile users and administrators, minimizing configuration and operational human errors that would otherwise result in confusion or lost messages.

**21 Claims, 7 Drawing Sheets**



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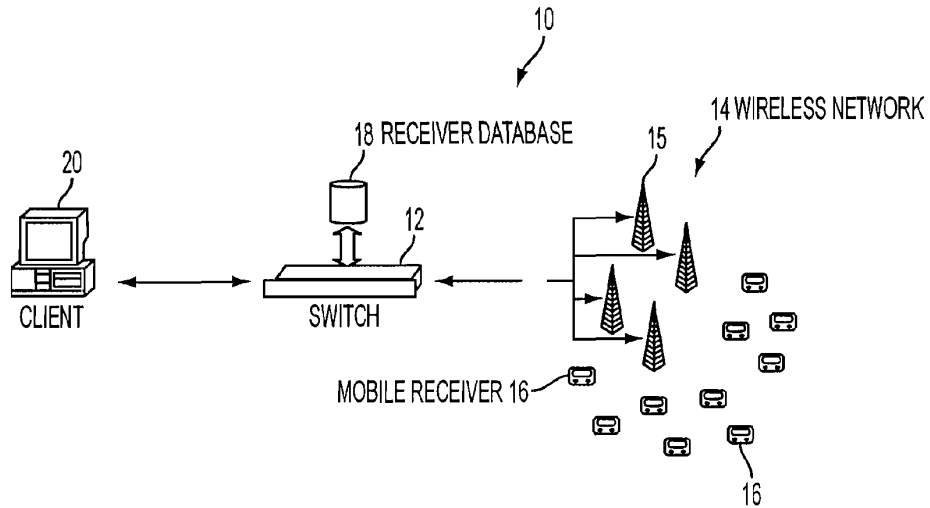


FIG. 1

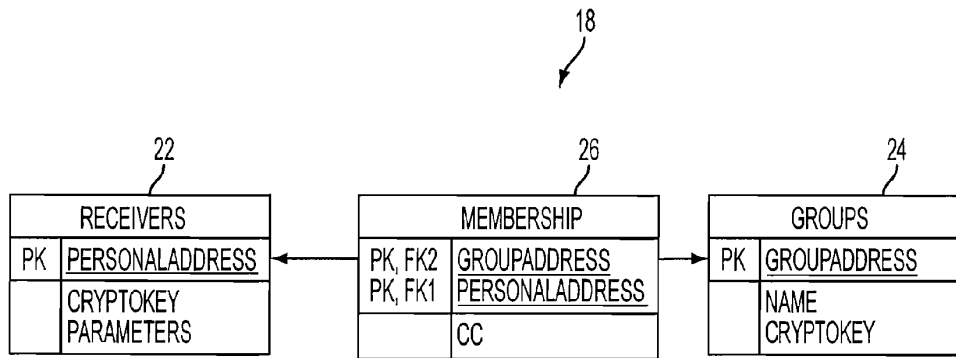


FIG. 2

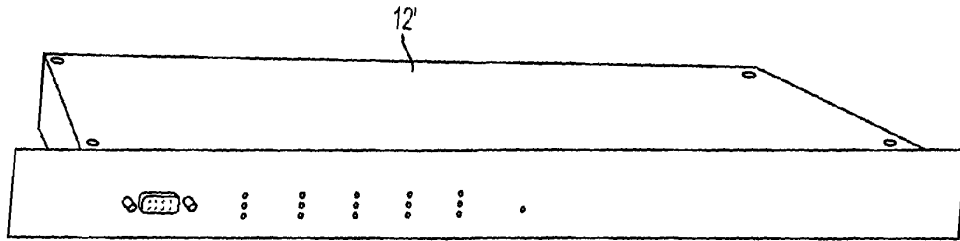


FIG. 3

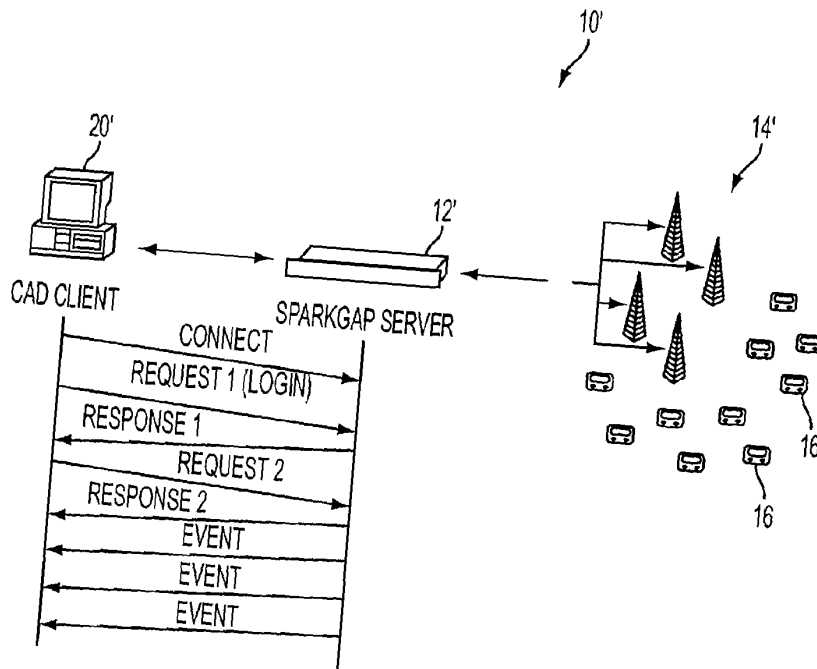
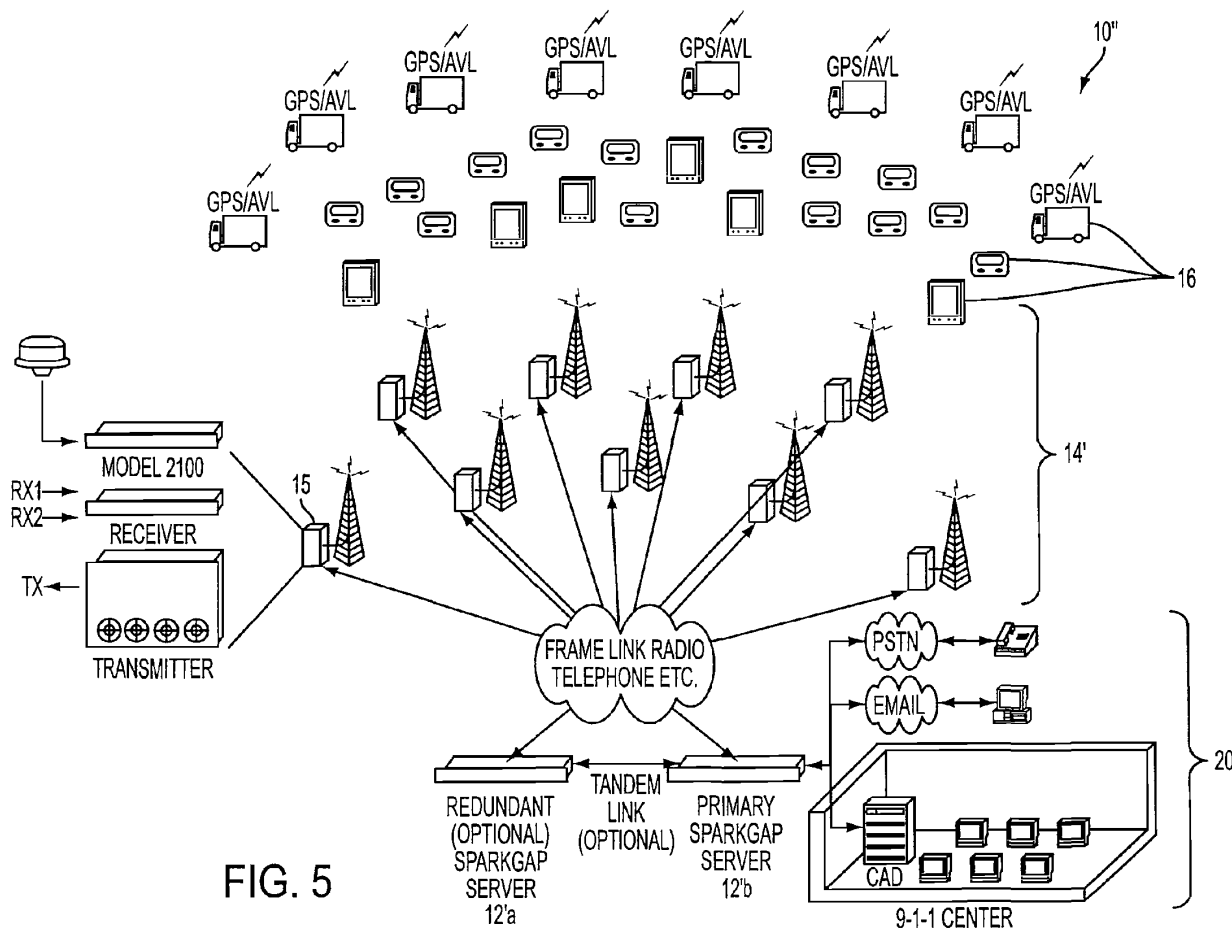


FIG. 4



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