United States Patent [19]

Zabarsky et al.

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[45] **Date of Patent: Feb. 17, 1987**

[54] **TWO WAY PERSONAL MESSAGE SYSTEM WITH EXTENDED COVERAGE**

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[73] Assignee: **Motorola, Inc.,** Schaumburg, Ill.

[21] Appl. No.: **608,334**

[22] Filed: **May 8, 1984**

[51] **Int. Cl.**[4] **H04Q 7/00;** G08B 5/22; H04B 1/00

[52] **U.S. Cl.** **340/825.44;** 340/825.52; 455/33; 455/53; 379/57

[58] **Field of Search** ..... 340/825.44, 825.47, 340/825.52, 825.55, 825.48; 455/33, 38, 49, 53, 54, 56; 179/2 EB, 2 EC, 18 BF

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[57] **ABSTRACT**

A communications system for carrying messages via a radio channel between one central site of a plurality of central sites and a plurality of two-way remote data units is disclosed. Each central site has a radio coverage area and each remote unit has a unique address and association with one of the central sites. When a message addressed to one of the remote units is received in a central site, a file of remote unit addresses is searched to find the location and central site association of the remote unit to which the message is addressed. If an address match is found indicating that the remote transceiver is in the coverage area of the message-receiving central site, the addressed message is stored and transmitted in that site. If an address match is found indicating that the remote transceiver is in another central site, the addressed message is conveyed to that site for transmission.

29 Claims, 13 Drawing Figures

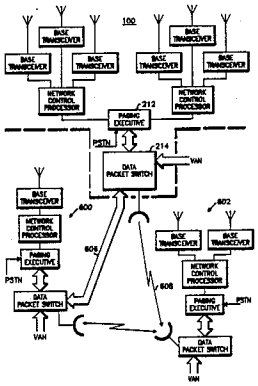

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Fig. 1

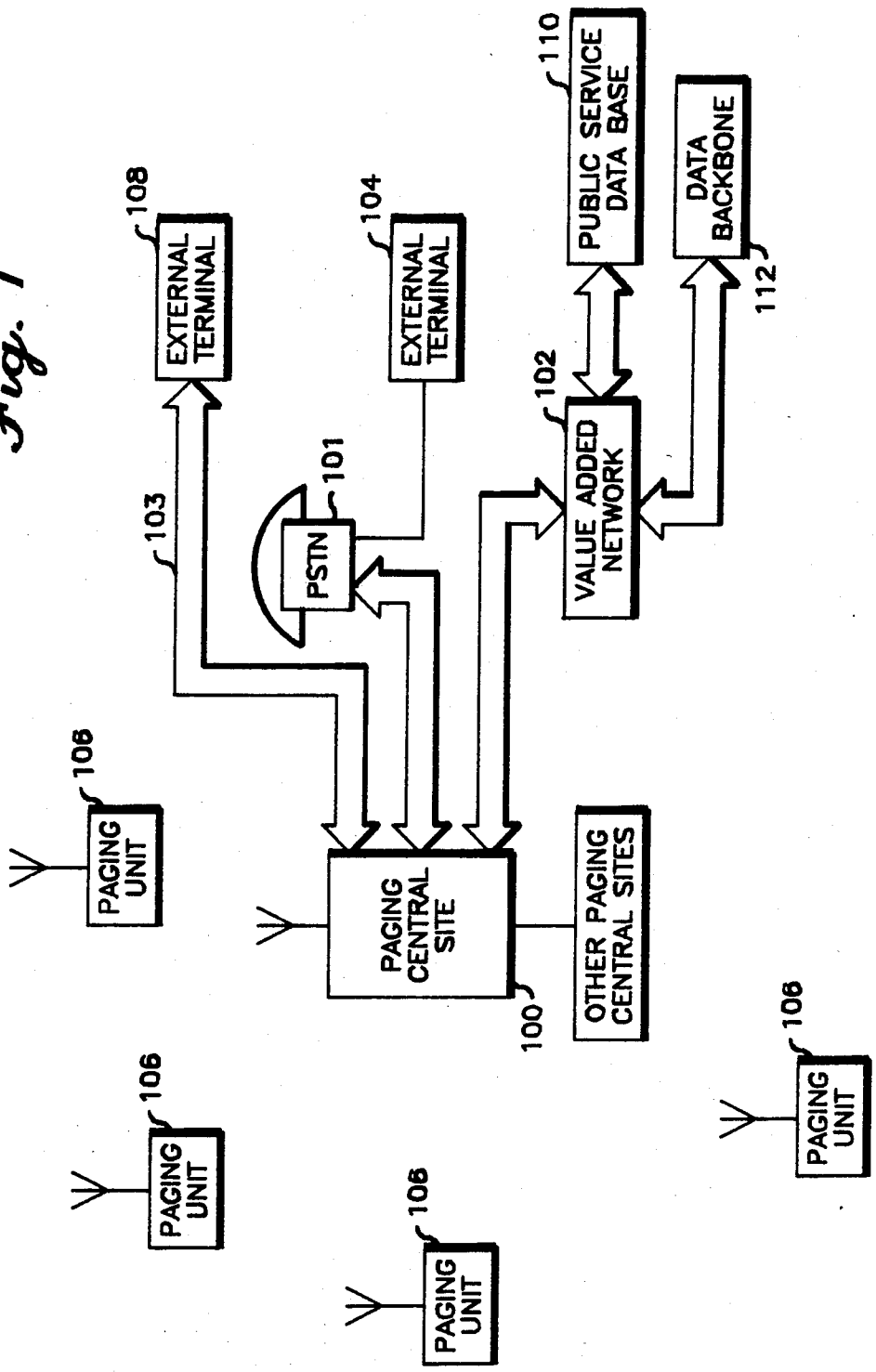

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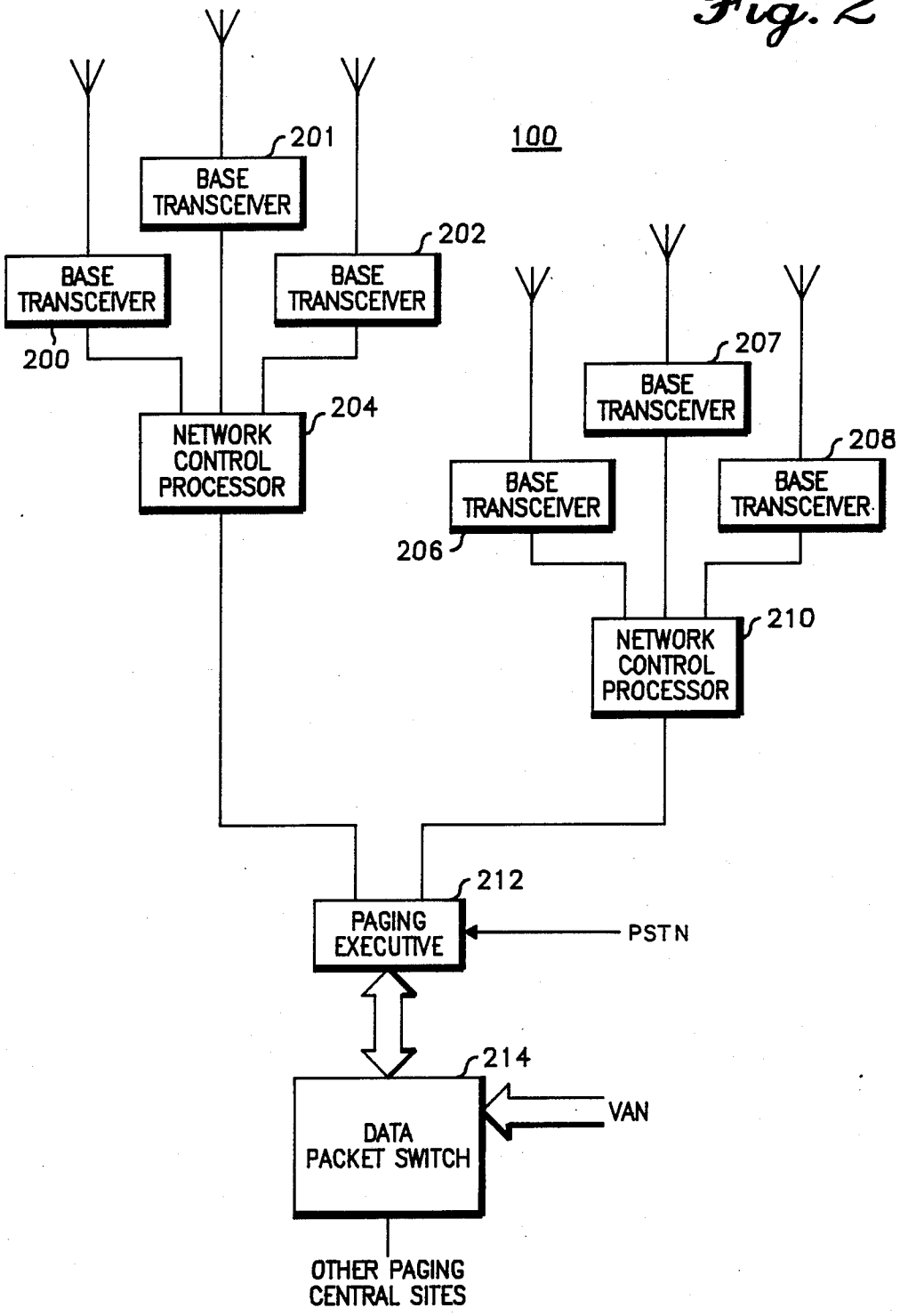
Fig. 2



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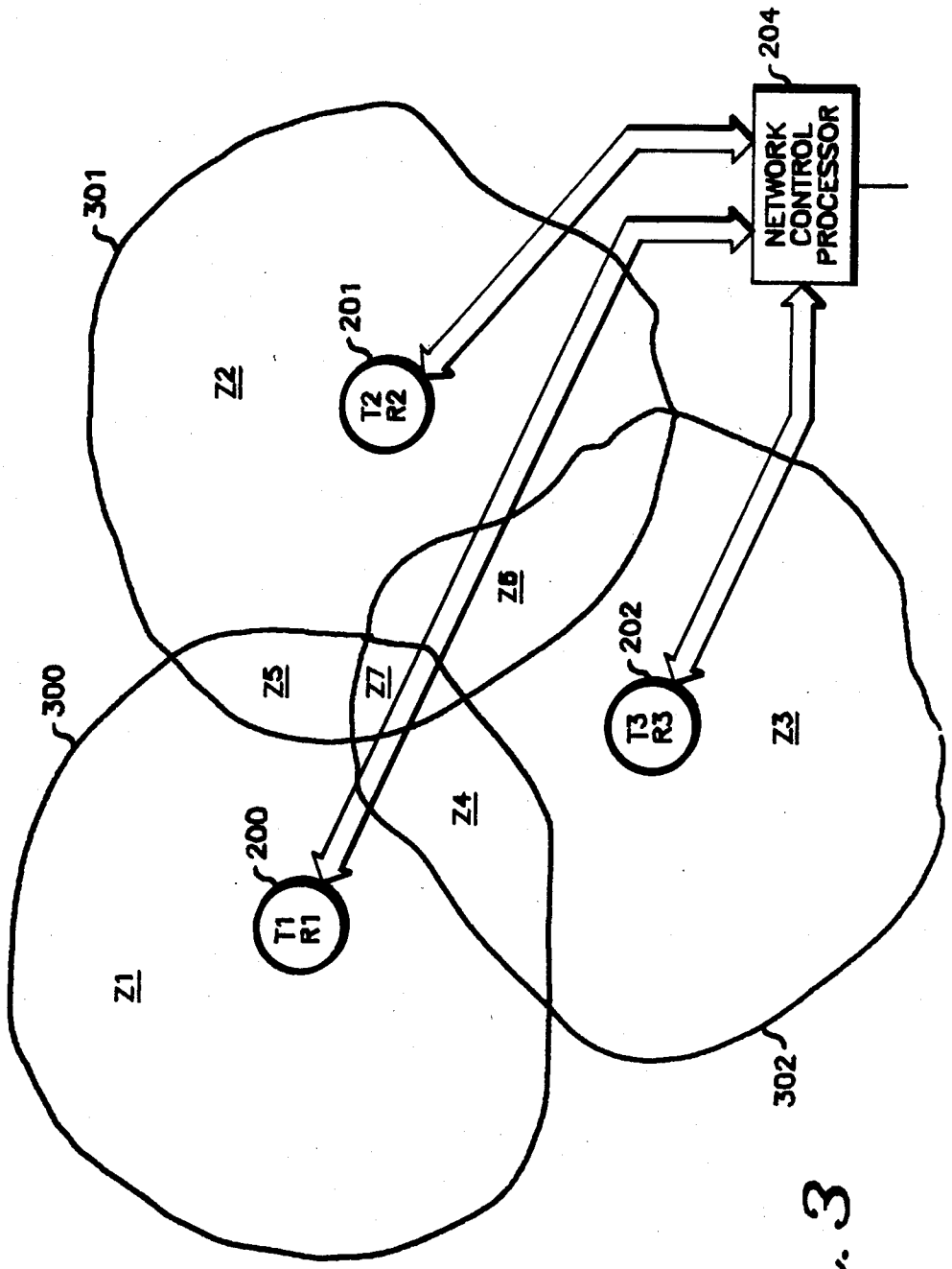

Fig. 3

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