United States Patent [19]

Spaur et al.

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[54] MOBILE PORTABLE WIRELESS COMMUNICATION SYSTEM

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[51] Int. Cl.⁶ H04M 11/00

[52] **U.S. Cl.** **370/313**; 370/401; 455/457

99, 457, 404, 577, 563; 379/58, 59, 63

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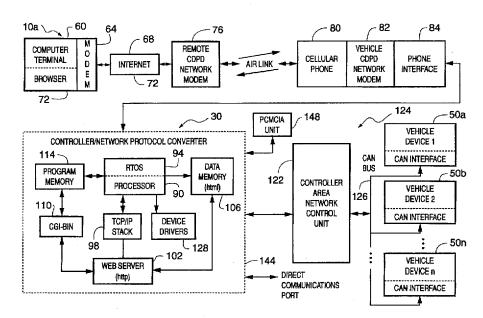
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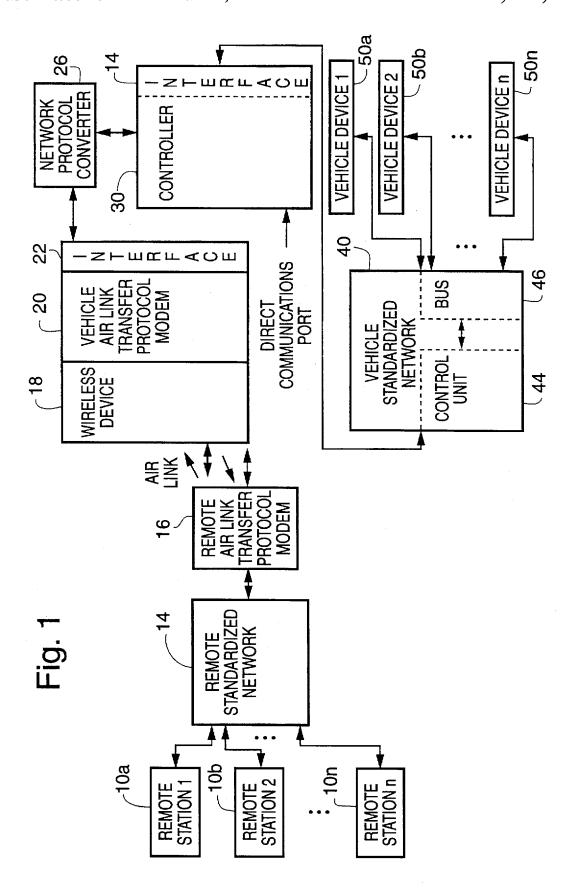
Primary Examiner—Chau Nguyen Attorney, Agent, or Firm—Sheridan Ross P.C.

[57] ABSTRACT

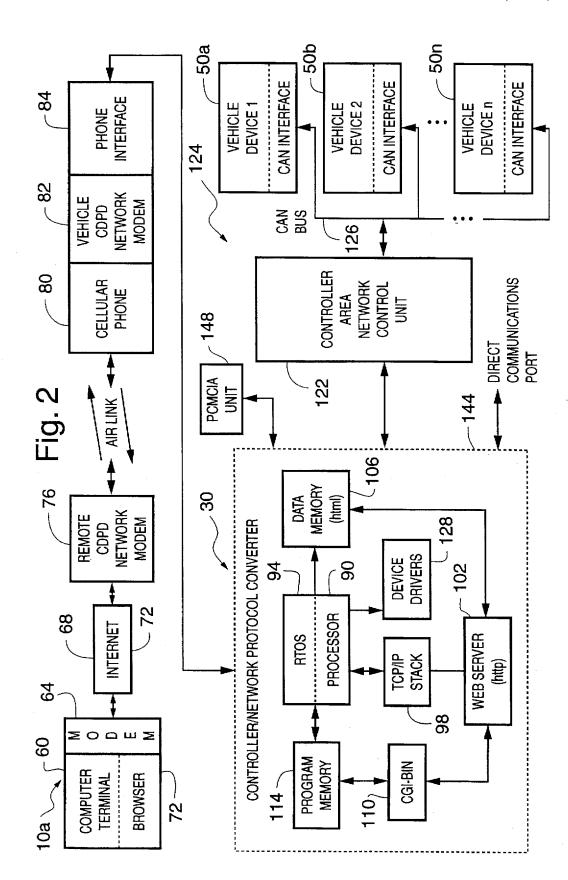
Communication of information including data between a remote computer and a vehicle is managed and facilitated using an apparatus compatible with standardized network communication links. In one embodiment, the standardized network communication links include the Internet and a controller area network used in vehicles. The apparatus preferably includes a controller contained in the vehicle. The controller is comprised of a number of hardware and software elements including a processor. A TCP/IP stack is part of the controller for providing the necessary control in checking for communicating information, such as requests and data, over the Internet. A web server communicates with the TCP/IP stack for servicing information related requests in http format including obtaining or sending information in operative communication with the TCP/IP stack. A CGI-bin (common gateway interface-binary) communicates with the web server and acts as a link to executable software stored in program memory that is responsive to user requests. A data memory is also available for storing data in html that is accessible by the web server. A real time operating system (RTOS) is involved in task and memory management as part of the responding to requests for information. The controller is able to receive requests using a wireless device when it is in the vehicle and through a communications port when the wireless device is not in the vehicle. In another embodiment, each of the plurality of vehicle devices has an Internet address or designation associated with it.

21 Claims, 4 Drawing Sheets





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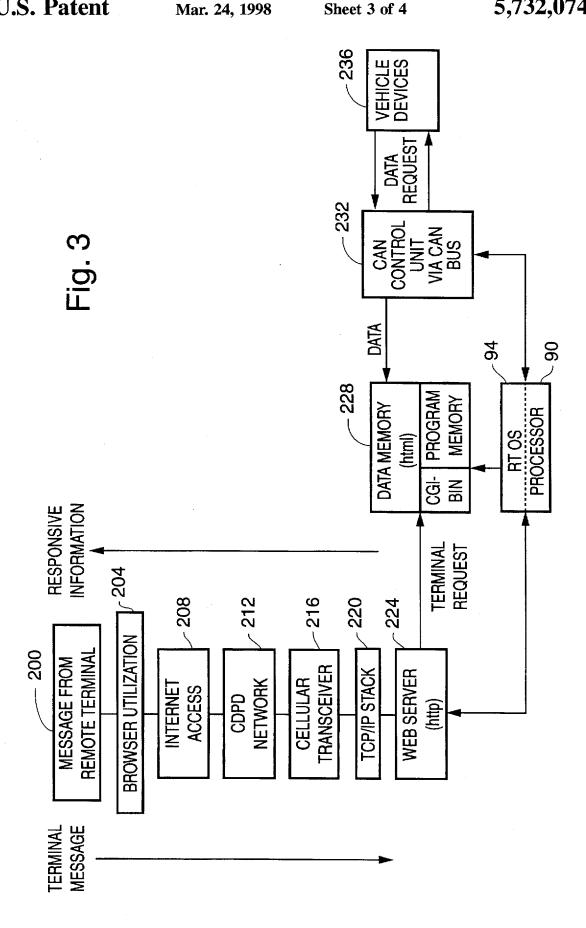
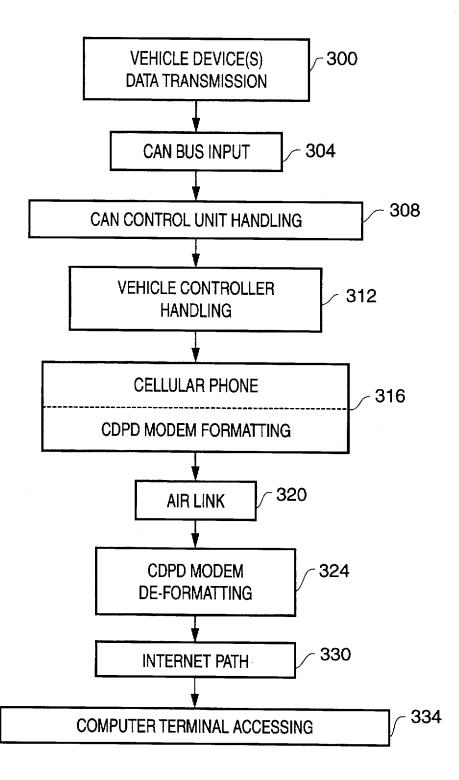


Fig. 4



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