

(12) **United States Patent**
Jones

(10) **Patent No.:** **US 6,748,318 B1**
(45) **Date of Patent:** ***Jun. 8, 2004**

(54) **ADVANCED NOTIFICATION SYSTEMS AND METHODS UTILIZING A COMPUTER NETWORK**

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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.

This patent is subject to a terminal disclaimer.

- (21) Appl. No.: **08/852,119**
- (22) Filed: **May 6, 1997**

Related U.S. Application Data

- (63) Continuation of application No. 08/434,049, filed on May 2, 1995, now Pat. No. 5,623,260, which is a continuation of application No. 08/432,898, filed on May 2, 1995, now Pat. No. 5,657,010, which is a continuation-in-part of application No. 08/432,666, filed on May 2, 1995, now Pat. No. 5,668,543, which is a continuation-in-part of application No. 08/407,319, filed on Mar. 20, 1995, now abandoned, which is a continuation-in-part of application No. 08/063,533, filed on May 18, 1993, now Pat. No. 5,400,020.
- (60) Provisional application No. 60/039,925, filed on Mar. 10, 1997.
- (51) **Int. Cl.**⁷ **G01C 21/30; G08G 1/23**
- (52) **U.S. Cl.** **701/201; 701/204; 340/994; 340/992; 340/996; 455/412.1; 455/414.2**
- (58) **Field of Search** **701/117, 23, 24; 340/990, 991, 994, 300, 988, 993; 342/352, 357, 457; 455/457, 456, 461, 411, 403; 711/109**

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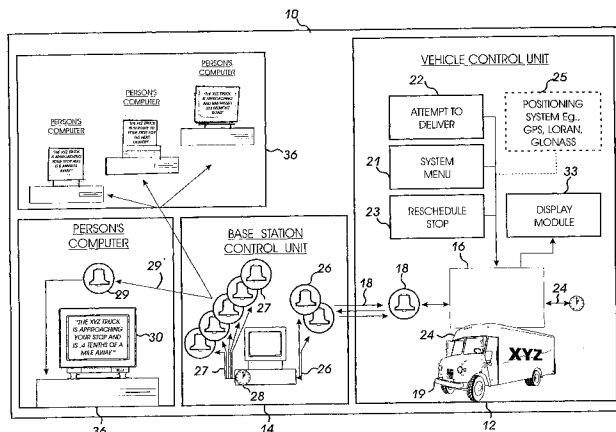
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(57) **ABSTRACT**

An advance notification system notifies users of the impending arrival of a vehicle, for example, an overnight package delivery vehicle, at a particular vehicle stop. The system generally includes an on-board vehicle control unit (VCU) for each vehicle and a base station control unit (BSCU) for sending messages to user computers in order to inform the users when the vehicle resides at a certain predefined time period, distance, prior stop, and/or location point from the vehicle stop. Moreover, vehicle tracking, the BSCU, a computer network (e.g., the Internet), and software located on a user computer may be combined in a plurality of configurations for launching and communicating a message of the impending arrival of a particular vehicle before it arrives. Significantly, the computer message is to advise of the impending arrival and preferably will exhibit a distinctive display and/or sound on the recipient computer so that the recipient is informed of the message. The VCU sends vehicle location and/or stop information to the BSCU. The BSCU compares the vehicle route stop list with route management software, then determines when to send an impending arrival message by preferences, normally chosen by the system operator or a user preparing to receive the advance notification message. The user computer displays information associated with the impending arrival of a vehicle in the form of the name of the vehicle, when the vehicle has finished a previous delivery, the miles before a stop, the time before arriving, and/or an actual location of a vehicle when a vehicle reaches a certain point/place. Additionally, other addressable communication devices could be used in place of or in addition to the computer message, such as personal pagers, mobile telephones, television box de-scramblers, etc. Users may also contact the computer site and/or computer address for impending arrival information.

138 Claims, 44 Drawing Sheets



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