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(54) **NOTIFICATION SYSTEMS AND METHODS WITH USER-DEFINABLE NOTIFICATIONS BASED UPON OCCURANCE OF EVENTS**

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(58) Field of Classification Search ..... None
See application file for complete search history.

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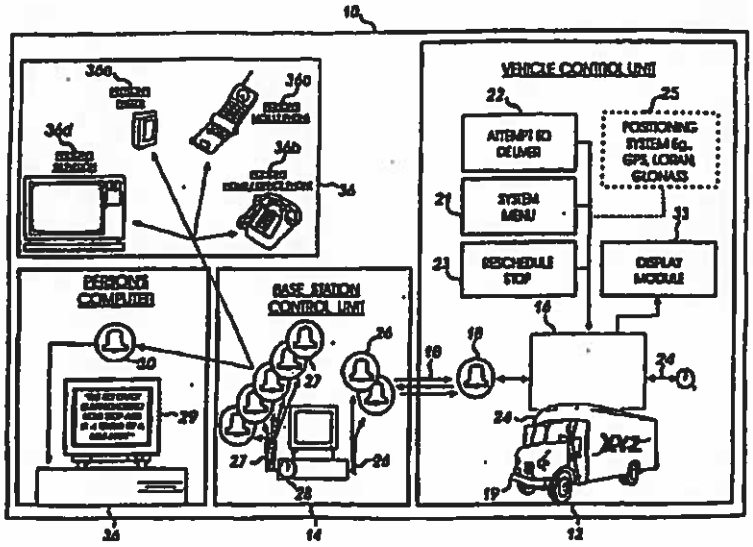
(57) **ABSTRACT**

Methods and systems are disclosed for a vehicle status reporting system for allowing a user to define when a user will receive a vehicle status report about the status of a mobile vehicle, in relation to a location, for establishing a communication link between the system and the user, and for delivering the status report during the communication link, the status report indicating occurrence of one or more events.



INTER PARTES REEXAMINATION CERTIFICATE ISSUED UNDER 35 U.S.C. 316

THE PATENT IS HEREBY AMENDED AS INDICATED BELOW.

Matter enclosed in heavy brackets [ ] appeared in the patent, but has been deleted and is no longer a part of the patent; matter printed in italics indicates additions made to the patent.

AS A RESULT OF REEXAMINATION, IT HAS BEEN DETERMINED THAT:

Claims 1, 19, 21, 22, 40, 41 and 43 are determined to be patentable as amended.

Claims 2-18, 20, 23-39, 42, 44 and 45, dependent on an amended claim, are determined to be patentable.

New claims 46-58 are added and determined to be patentable.

1. A method for a notification system, the method for allowing a user to define when the user is to receive a vehicle status report relating to the status of a mobile vehicle, in relation to a location, the method comprising the steps of:

(a) permitting the user to predefine one or more events that will cause creation and communication of the vehicle status report by the following steps:

(1) permitting the user to establish a first communication link with a host computer system using a user communications device that is remote from the host computer *system and the vehicle whose travel is being monitored, the host computer system being remote from the vehicle*;

(2) receiving during the first communication link at the host computer system an identification of the one or more events relating to the status, wherein the one or more events comprises at least one of the following: distance information specified by the user that is indicative of a distance between the vehicle and the location, location information specified by the user that is indicative of a location or region that the vehicle achieves during travel, time information specified by the user that is indicative of a time for travel of the vehicle to the location, or a number of one or more stops that the vehicle accomplishes prior to arriving at the location;

(3) storing the predefined one or more events in memory associated with the host computer system;

(b) analyzing data indicative of travel of the mobile vehicle;

(c) initiating a second communication link from the host computer system to a remote communications device to be notified, when appropriate, based upon *occurrence of* the predefined one or more events [and] *from the* data indicative of travel; and

(d) delivering the *vehicle* status report from the host computer to the notified remote communications device during the second communication link, the *vehicle* status report indicating occurrence of the one or more events.

19. A method for implementation in connection with a notification system, comprising the steps of:

(a) permitting a user to predefine one or more events that will cause creation and communication of a notification relating to the status of a mobile vehicle in relation to a location, by the following steps:

(1) permitting the user to electronically communicate during a first communication link with the notification system from a user communications device that is remote from the notification system *and the vehicle whose travel is being monitored, the notification system being located remotely from the vehicle*;

(2) receiving at the notification system during the first communication link an identification of the one or more events relating to the status of the vehicle, wherein the one or more events comprises at least one of the following: distance information specified by the user that is indicative of a distance between the vehicle and the location, location information specified by the user that is indicative of a location or region that the vehicle achieves during travel, time information specified by the user that is indicative of a time for travel of the vehicle to the location, or a number of one or more stops that the vehicle accomplishes prior to arriving at the location;

(b) initiating a second communication link from the host computer sytem to a remote communications device to be notified *of the status of the mobile vehicle in relation to the location*, when appropriate, based upon *occurrence of* the predefined one or more events *by the vehicle during the travel*,

21. A method comprising the steps of:

(a) permitting a user to predefine at a computer system one or more events that will cause creation and communication of a notification relating to the status of a mobile vehicle in relation to a location, wherein the one or more events comprises at least one of the following: distance information specified by the user that is indicative of a distance between the vehicle and the location, location information specified by the user that is indicative of a location or region that the vehicle achieves during travel, time information specified by the user that is indicative of a time for travel of the vehicle to the location, or a number of one or more stops that the vehicle accomplishes prior to arriving at the location;

(b) tracking movement of the vehicle as it moves toward the location; and

(c) communicating a notification *on a status of the vehicle* from the computer system to a user communication device upon occurrence of the one or more events *by the vehicle during the travel*, the user communication device being a general-purpose communications device that is remote from the location *and the vehicle whose travel is being monitored* and that is designed to communicate with other communications devices that are undedicated to the computer system, *wherein the computer system is located remotely from the vehicle.*

22. The method of claim 21, further comprising the step of delivering a status report *on relative location of the vehicle in relation to the location* during communication of the notification to the user.

40. A notification system for allowing a user to define when the user is to receive a vehicle status report relating to the status of a mobile vehicle, in relation to a location, the system comprising:

(a) means for permitting the user to predefine one or more events that will cause creation and communication of the vehicle status report, comprising:

(1) means for permitting the user to establish a communication link with a host computer system using a user communications device that is remote from the host computer *and the vehicle whose travel is being monitored, the host computer system being remote from the vehicle*;

(2) means for receiving during the first communication link at the host computer system an identification of the one or more events relating to the status of the vehicle, wherein the one or more events comprises at least one of the following: distance information specified by the user that is indicative of a distance between the vehicle and the location, location information specified by the user that is indicative of a location or region that the vehicle achieves during travel, time information specified by the user that is indicative of a time for travel of the vehicle to the location, or a number of one or more stops that the vehicle accomplishes prior to arriving at the location;

(3) means for storing the predefined one or more events in memory associated with the host computer system;

(b) means for analyzing data indicative of travel of the mobile vehicle;

(c) means for enabling initialization of communication links from the host computer system to a remote communications device to be notified, when appropriate, based upon *occurrence of* the predefined one or more events [and] *from the* data indicative of travel; and

(d) means for delivering the *vehicle* status report from the host computer to the notified remote communications device during the second communication link, the *vehicle* status report indicating occurrence of the one or more events *by progression of travel of the vehicle.*

41. A notification system, comprising:

(a) means for permitting a user to predefine one or more events that will cause creation and communication of a notification relating to the status of a mobile vehicle in relation to a location, comprising:

(1) means for permitting the user to electronically communicate during a first communication link with the notification system from a user communications device that is remote from the notification system *and the vehicle whose travel is being monitored, the notification system being located remotely from the vehicle*; and

(2) means for receiving during the first communication link an identification of the one or more events relating to the status of the vehicle, wherein the one or more events comprises at least one of the following: distance information specified by the user that is indicative of a distance between the vehicle and the location, location information specified by the user that is indicative of a location or region that the vehicle achieves during travel, time information specified by the user that is indicative of a time for travel of the vehicle to the location, or a number of one or more stops that the vehicle accomplishes prior to arriving at the location; and

(b) means for establishing a second communication link between the system and the user upon occurrence of the one or more events *achieved by the mobile vehicle during the travel.*

43. A system comprising:

(a) means for permitting a user to predefine at a computer system one or more events that will cause communication of a notification relating to the status of a mobile vehicle, wherein the one or more events comprises at least one of the following: distance information specified by the user that is indicative of a distance between

the vehicle and [the] *a* location, location information specified by the user that is indicative of a location or region that the vehicle achieves during travel, time information specified by the user that is indicative of a time for travel of the vehicle to the location, or a number of one or more stops that the vehicle accomplishes prior to arriving at the location;

(b) means for tracking movement of the vehicle as it moves toward the location[:]; and

(c) means for communicating a notification *on a status of the vehicle* from the computer system to a user communication device upon occurrence of the one or more events *by progression of the vehicle during the travel, wherein the computer system and the user communication device are remote from the vehicle whose travel is being tracked.*

46. The method of claim 1, wherein the mobile vehicle comprises a delivery service vehicle, the user being an intended recipient of a package to be delivered by the delivery service vehicle and the location being a location where the package is scheduled to be delivered.

47. The method of claim 1, wherein the first communication link is established from a request initiated by the user communications device.

48. The method of claim 19, wherein the mobile vehicle comprises a delivery service vehicle, the user being an intended recipient of a package to be delivered by the delivery service vehicle and the location being a location where the package is scheduled to be delivered.

49. The method of claim 19, wherein the first communication link is established from a request initiated by the user communications device.

50. The method of claim 20, wherein the status report is delivered to the remote communications device.

51. The method of claim 21, wherein the mobile vehicle comprises a delivery service vehicle, the user being an intended recipient of a package to be delivered by the delivery service vehicle and the location being a location where the package is scheduled to be delivered.

52. The system of claim 40, wherein the mobile vehicle comprises a delivery service vehicle, the user being an intended recipient of a package to be delivered by the delivery service vehicle and the location being a location where the package is scheduled to be delivered.

53. The system of claim 40, wherein the communication link is established from a request initiated by the user communications device.

54. The system of claim 41, wherein the mobile vehicle comprises a delivery service vehicle, the user being an intended recipient of a package to be delivered by the delivery service vehicle and the location being a location where the package is scheduled to be delivered.

55. The system of claim 41, wherein the first communication link is established from a request initiated by the user communications device.

56. The system of claim 42, wherein the status report is delivered to the user during the second electronic communication.

57. The system of claim 43, wherein the mobile vehicle comprises a delivery service vehicle, the user being an intended recipient of a package to be delivered by the delivery service vehicle and the location being a location where the package is scheduled to be delivered.

58. The method of claim 1, wherein the status report includes a message that the vehicle has arrived at the location.

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