

US007327258B2

(12) United States Patent

Fast et al.

(10) Patent No.: US 7,327,258 B2 (45) Date of Patent: Feb. 5, 2008

(54)	SYSTEM FOR, AND METHOD OF,
	MONITORING THE MOVEMENTS OF
	MOBILE ITEMS

(75) Inventors: **Raymond D. Fast**, Surrey (CA);

Robert R. Goehring, Vancouver (CA); Kai Loon Ng, Vancouver (CA)

(73) Assignee: Guardian Mobile Monitoring

Systems, Vancouver, B.C. (CA)

(*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35

U.S.C. 154(b) by 384 days.

(21) Appl. No.: 11/048,555

(22) Filed: Jan. 31, 2005

(65) Prior Publication Data

US 2006/0181411 A1 Aug. 17, 2006

Related U.S. Application Data

(60) Provisional application No. 60/542,208, filed on Feb. 4, 2004.

(51) Int. Cl.

G08B 13/14 (2006.01)

(52) **U.S. Cl.** 340/572.1; 701/213

(56) References Cited

U.S. PATENT DOCUMENTS

5,317,309 A * 5/1994 Vercellotti et al. 340/10.5

5,519,403 A * 6,661,372 B1		Bickley et al 342/352 Girerd et al.
6,720,888 B2*	4/2004	Eagleson et al 340/572.1
7,139,820 B1*	11/2006	Carter
7,152,020 B2 * 7,176,797 B2 *		Michiwaki et al 340/539.11 Zai et al 340/572.1

FOREIGN PATENT DOCUMENTS

WO WO 02/23922 A2 3/2002

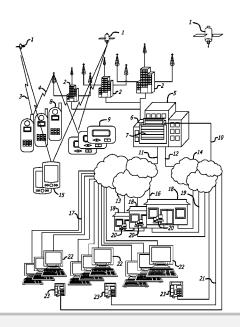
* cited by examiner

Primary Examiner—John Tweel, Jr. (74) Attorney, Agent, or Firm—Fulwider Patton LLP

(57) ABSTRACT

A system monitors parameters (e.g., speed, position, threshold boundaries) of mobile items attached to beacons and produces signals indicating these parameters. The system also monitors non-mobile parameters (e.g., battery life, door locks, windows) in the items. Different technologies (e.g., wireless) are provided for communicating between the beacons and a beacon controller interface. Different technologies are provided for locating and indicating item positions. The beacons and the interface provide for new beacons to be added to the system with different characteristics than the existing beacons for monitoring the operation of new beacons without affecting the operation of existing beacons. The system includes resellers, retailers, users and subscribers in a flexible relationship to enhance the ease in the system operation. Beacons can perform more than one function (e.g. tracking, threshold monitoring) simultaneously. Scenarios for the beacons can be created and monitored. Recovery personnel can intervene to resolve crises.

122 Claims, 30 Drawing Sheets





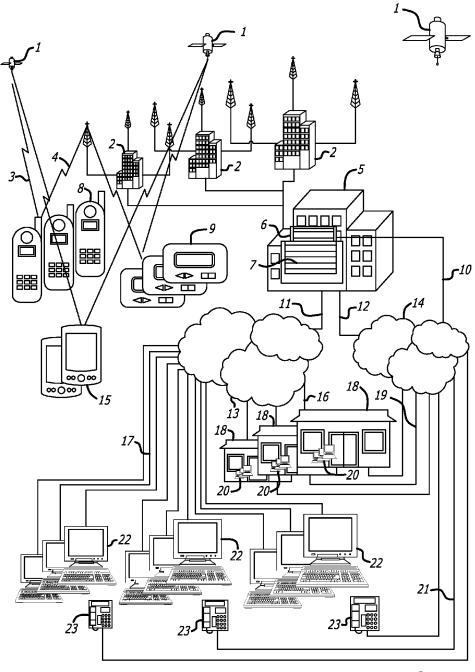
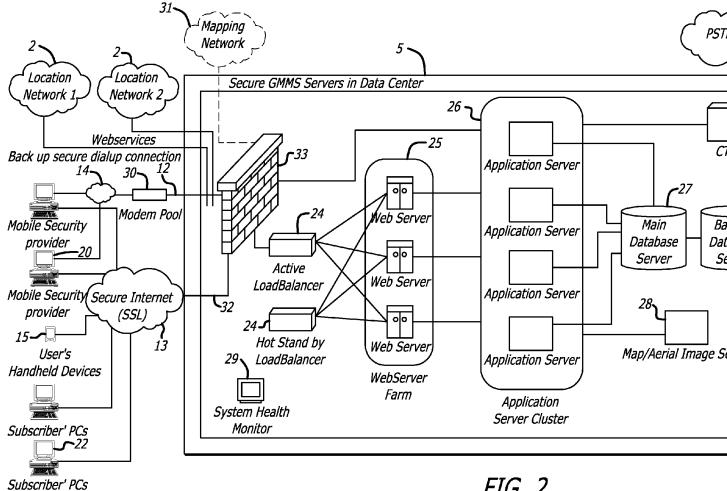
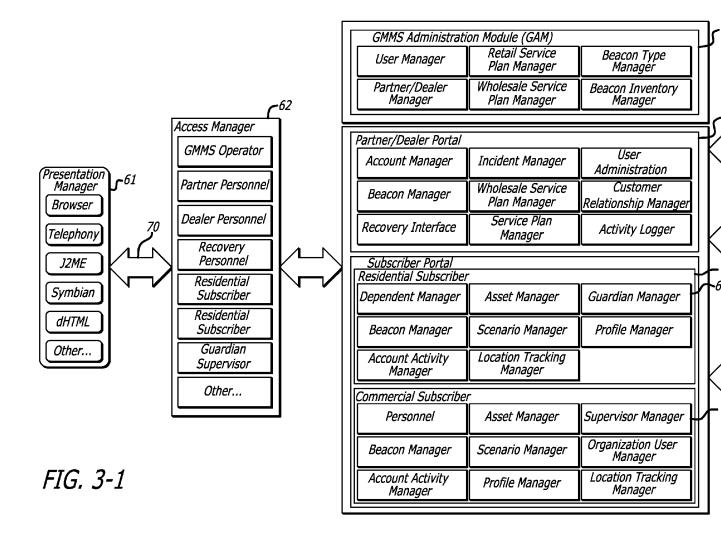


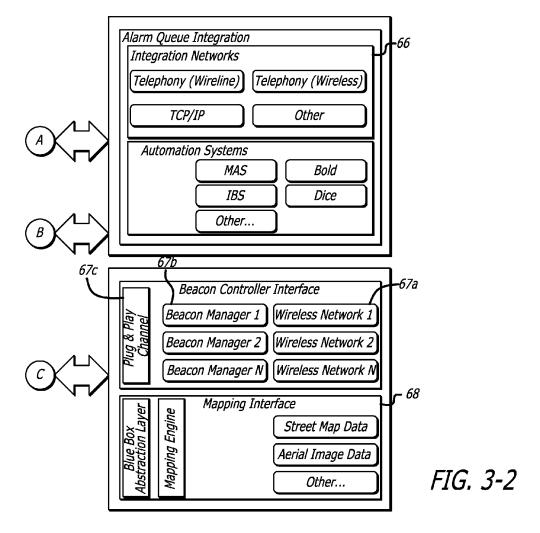
FIG. 1











DOCKET A L A R M

Explore Litigation Insights



Docket Alarm provides insights to develop a more informed litigation strategy and the peace of mind of knowing you're on top of things.

Real-Time Litigation Alerts



Keep your litigation team up-to-date with **real-time** alerts and advanced team management tools built for the enterprise, all while greatly reducing PACER spend.

Our comprehensive service means we can handle Federal, State, and Administrative courts across the country.

Advanced Docket Research



With over 230 million records, Docket Alarm's cloud-native docket research platform finds what other services can't. Coverage includes Federal, State, plus PTAB, TTAB, ITC and NLRB decisions, all in one place.

Identify arguments that have been successful in the past with full text, pinpoint searching. Link to case law cited within any court document via Fastcase.

Analytics At Your Fingertips



Learn what happened the last time a particular judge, opposing counsel or company faced cases similar to yours.

Advanced out-of-the-box PTAB and TTAB analytics are always at your fingertips.

API

Docket Alarm offers a powerful API (application programming interface) to developers that want to integrate case filings into their apps.

LAW FIRMS

Build custom dashboards for your attorneys and clients with live data direct from the court.

Automate many repetitive legal tasks like conflict checks, document management, and marketing.

FINANCIAL INSTITUTIONS

Litigation and bankruptcy checks for companies and debtors.

E-DISCOVERY AND LEGAL VENDORS

Sync your system to PACER to automate legal marketing.

