



US006204844B1

(12) **United States Patent**
Fumarolo et al.

(10) **Patent No.:** **US 6,204,844 B1**
(45) **Date of Patent:** **Mar. 20, 2001**

(54) **METHOD AND APPARATUS FOR DYNAMICALLY GROUPING COMMUNICATION UNITS IN A COMMUNICATION SYSTEM**

5,966,443 * 10/1999 Gonzalez et al. 380/21
5,966,659 * 10/1999 McDonald et al. 455/445
6,016,478 * 1/2000 Zhang et al. 705/9
6,072,490 * 6/2000 Bates et al. 345/347
6,105,027 * 8/2000 Schneider et al. 707/9

(75) Inventors: **Arthur L. Fumarolo**, Schaumburg;
Brett A. Jackson, Arlington Heights,
both of IL (US)

* cited by examiner

Primary Examiner—Steven Sax
(74) *Attorney, Agent, or Firm*—Val Jean Hillman

(73) Assignee: **Motorola, Inc.**, Schaumburg, IL (US)

(*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 0 days.

(57) **ABSTRACT**

A display-based terminal (101) employs a method and apparatus for dynamically grouping communication units (105–113) operating in a communication system (100). The display-based terminal displays a map (300, 400) to a user of the terminal that indicates, among other things, locations of communication units in at least a portion of the communication system. The terminal receives the user's selection of communication units from the map and an identification of at least one talkgroup with which the selected units are to become members. The communication units may be selected individually, as a group (e.g., using "click and drag" rectangling techniques), or both. After communication units have been selected from the map, the terminal automatically groups the selected units into the indicated talkgroup. If the terminal user desires to ungroup a previously grouped communication unit, the user selects the unit from the map and the terminal automatically removes the newly selected unit from the talkgroup.

(21) Appl. No.: **09/415,298**

(22) Filed: **Oct. 8, 1999**

(51) **Int. Cl.**⁷ **G09F 13/00**

(52) **U.S. Cl.** **345/329; 345/349**

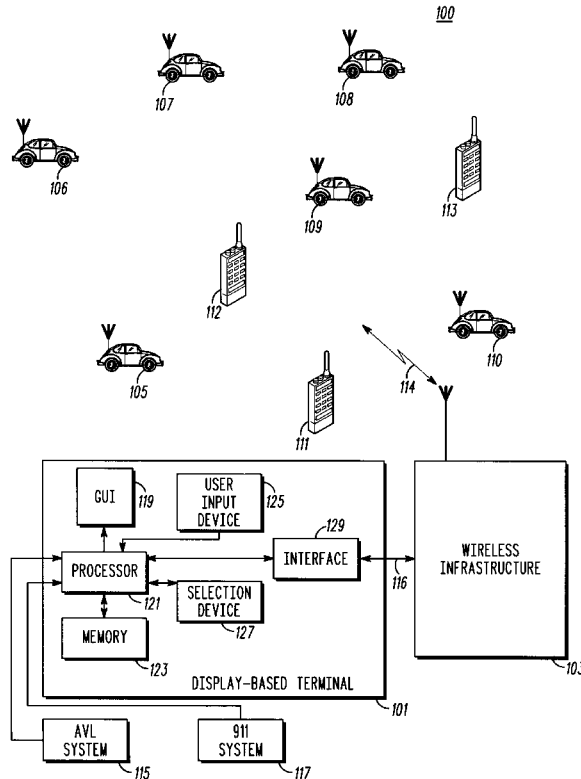
(58) **Field of Search** 345/352–355,
345/356–357, 329–330, 331, 332, 340,
348–349, 326, 333; 707/9, 10; 709/201,
205

(56) **References Cited**

U.S. PATENT DOCUMENTS

5,613,209 * 3/1997 Peterson et al. 455/34.1
5,836,529 * 11/1998 Gibbs 246/122
5,884,035 * 3/1999 Butman et al. 395/200.48
5,909,217 * 6/1999 Bereiter 345/357

31 Claims, 12 Drawing Sheets



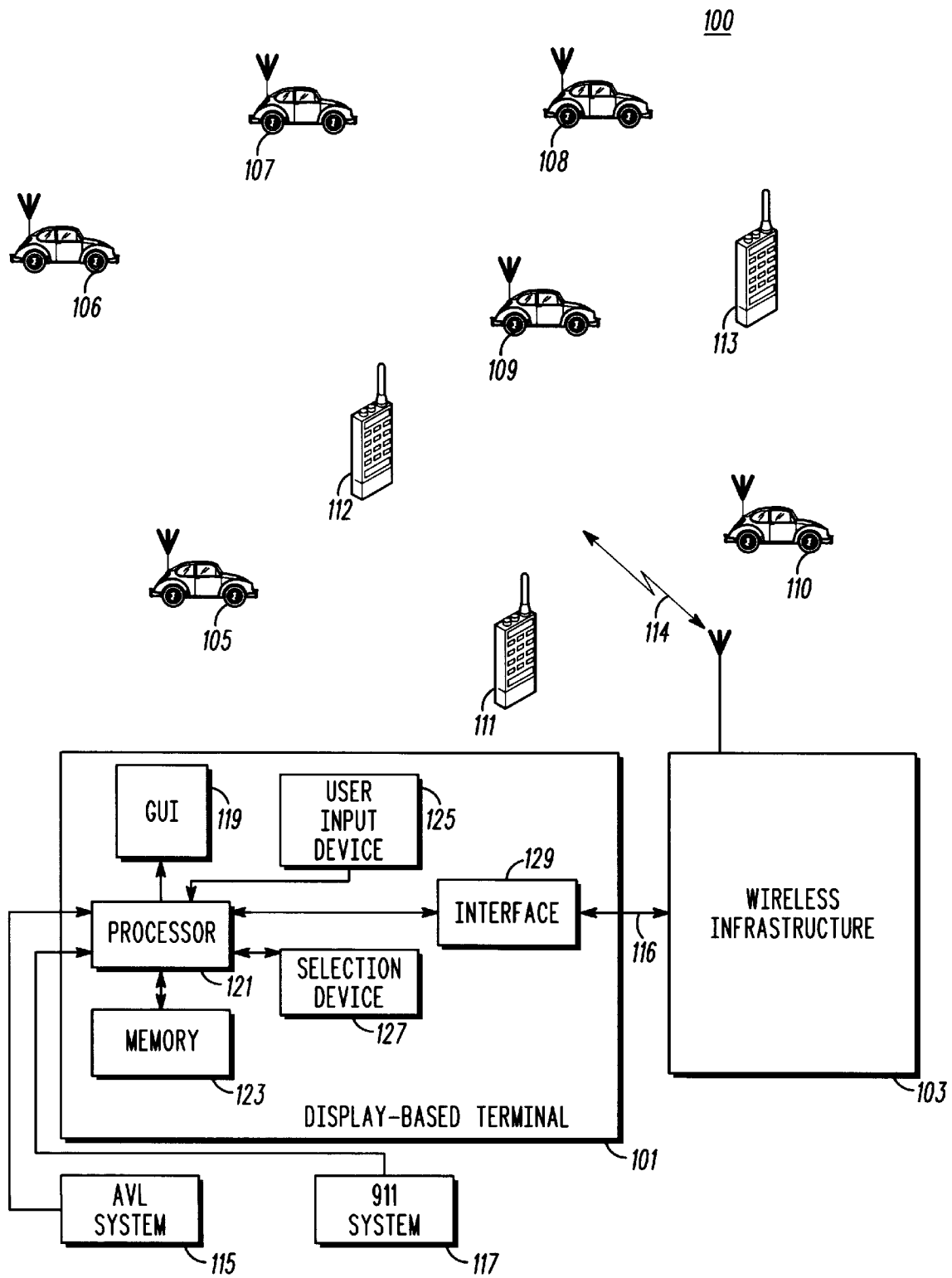


FIG. 1

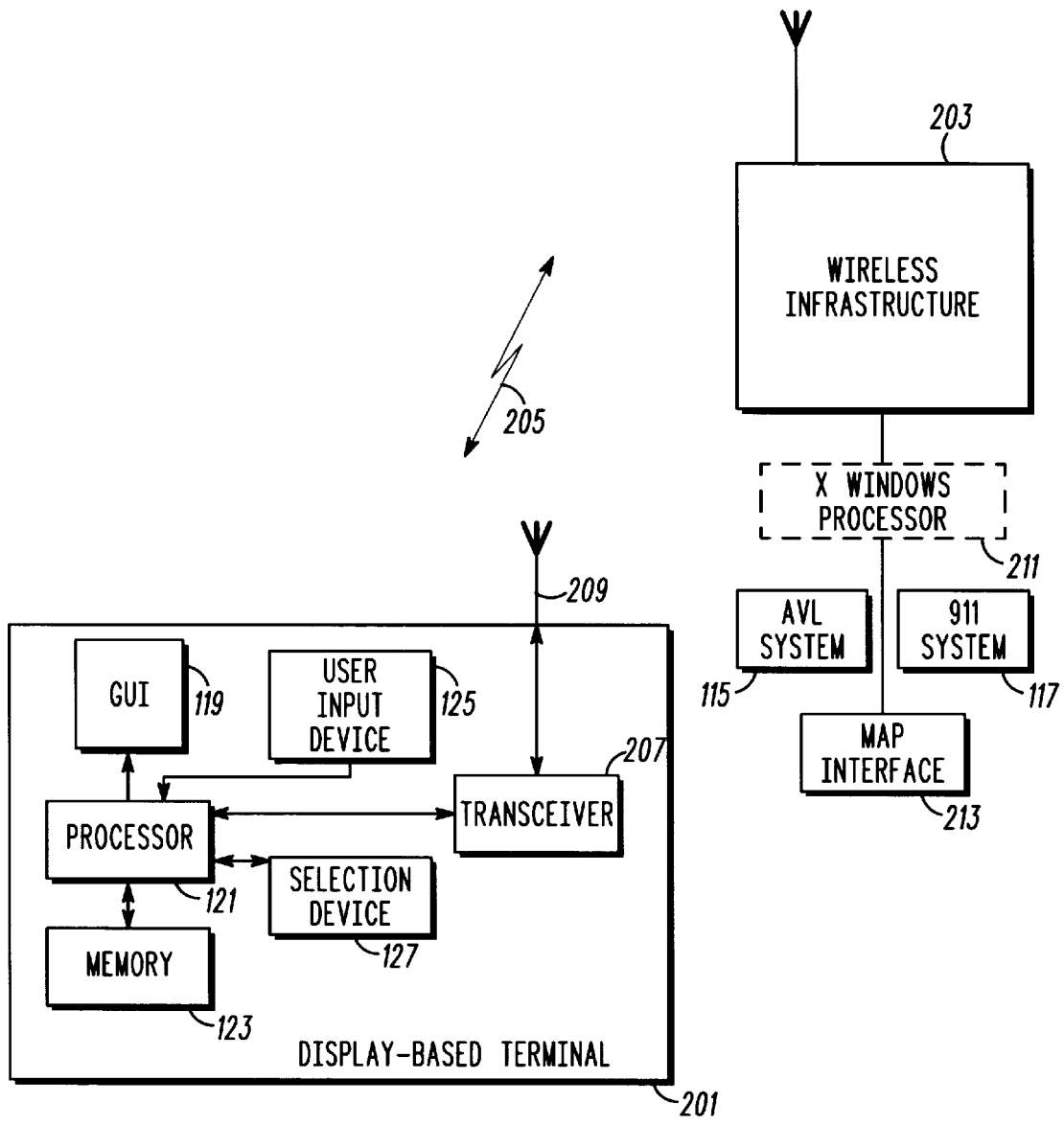


FIG. 2

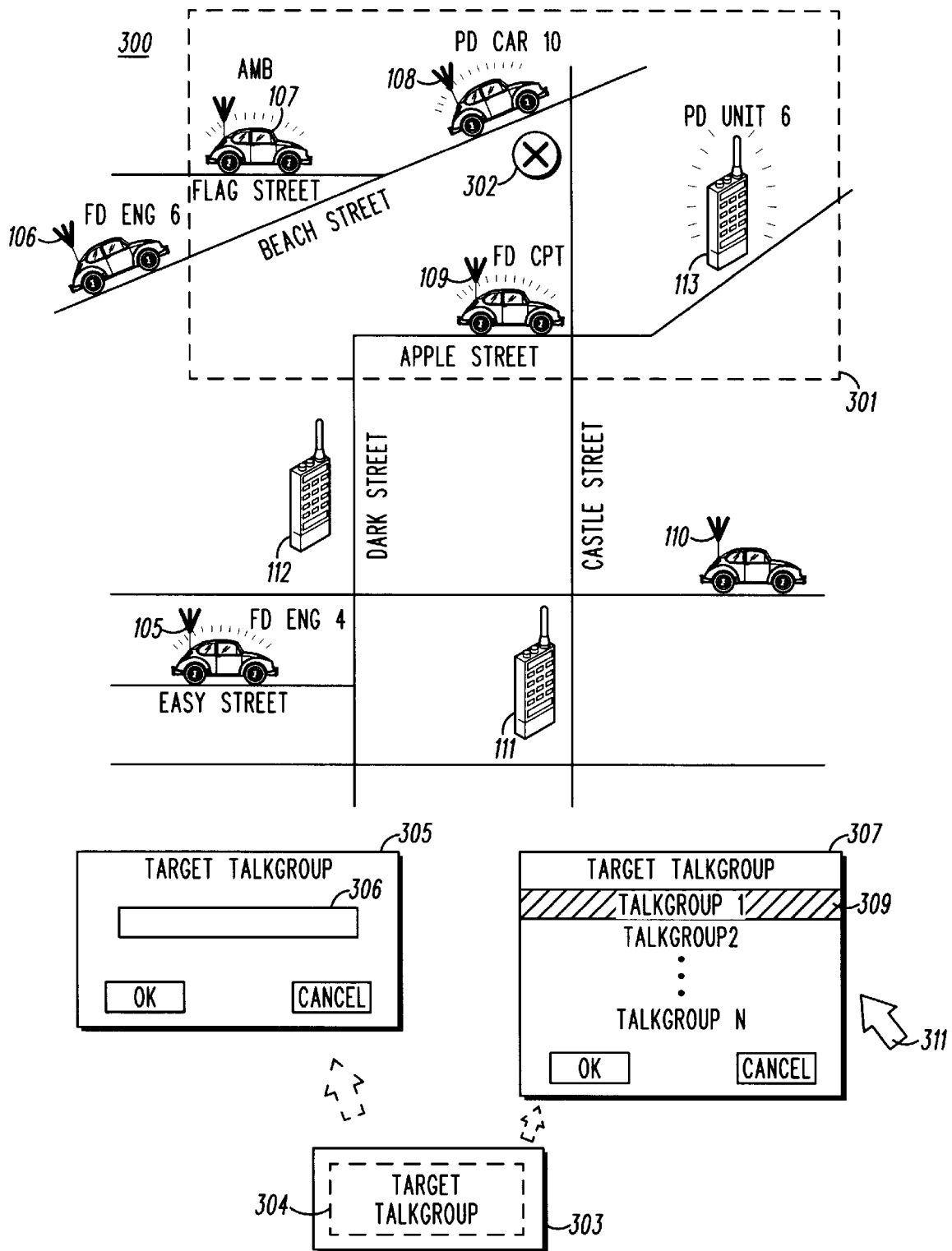


FIG. 3

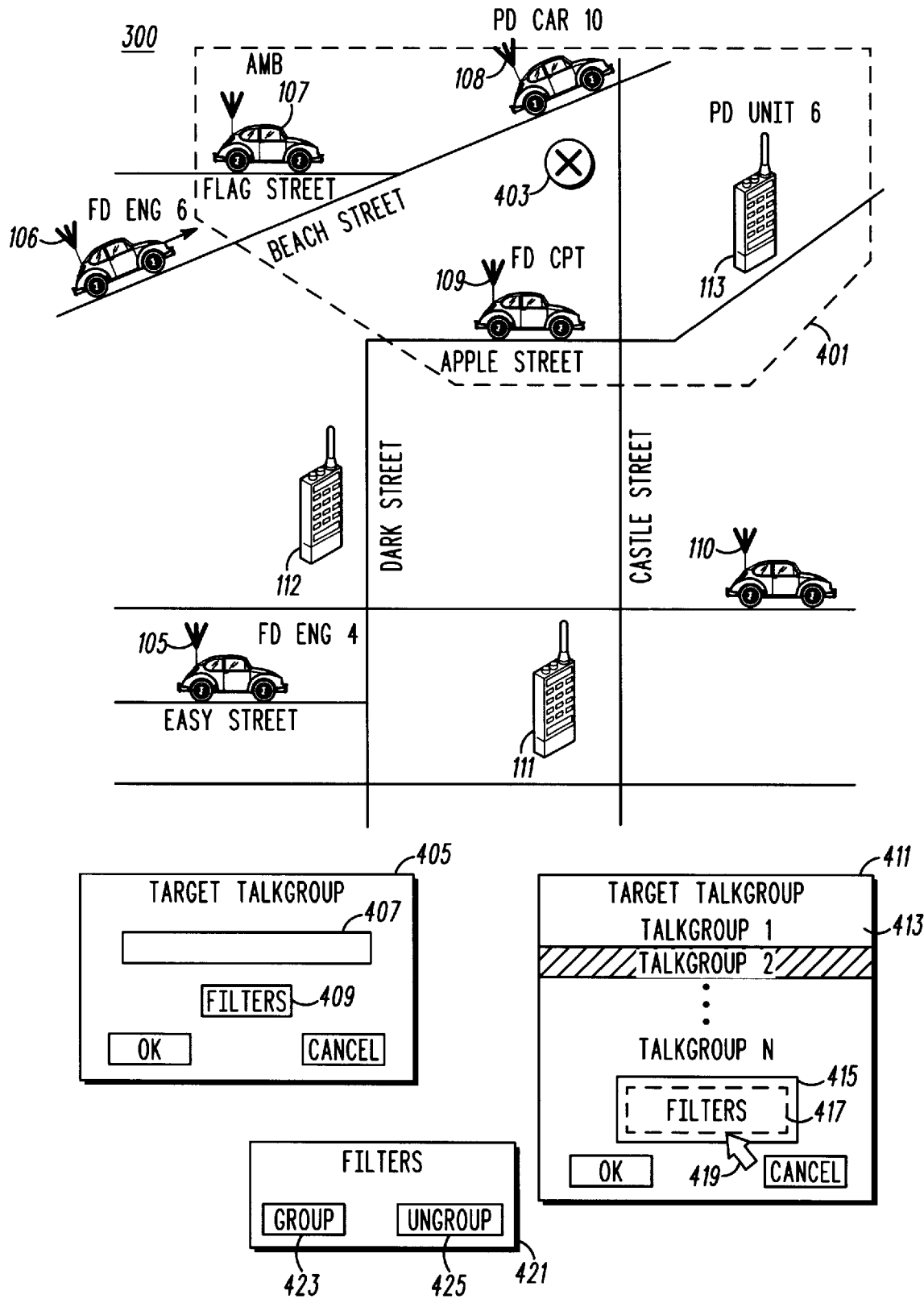


FIG. 4

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.