



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

(10) **Patent No.:** **US 6,198,939 B1**
(45) **Date of Patent:** **Mar. 6, 2001**

(54) **MAN MACHINE INTERFACE HELP SEARCH TOOL**

FOREIGN PATENT DOCUMENTS

(75) Inventors: **Tomas Holmström**, Dalby; **Johanna Isberg**; **Hassan Mahini**, both of Lund, all of (SE)

- 567 333 10/1993 (EP) .
- 570 116 11/1993 (EP) .
- 788 268 8/1997 (EP) .
- 9704580 2/1997 (WO) .

(73) Assignee: **Telefonaktiebolaget LM Ericsson (publ)**, Stockholm (SE)

* cited by examiner

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

Primary Examiner—Thanh Cong Le
(74) *Attorney, Agent, or Firm*—Burns, Doane, Swecker & Mathis, L.L.P.

(21) Appl. No.: **08/994,042**

(22) Filed: **Dec. 19, 1997**

(51) Int. Cl.⁷ **H04B 1/38**

(52) U.S. Cl. **455/550; 455/566; 455/575**

(58) **Field of Search** 455/464, 550, 455/563, 566, 567, 575, 90; 345/352, 353

(57) **ABSTRACT**

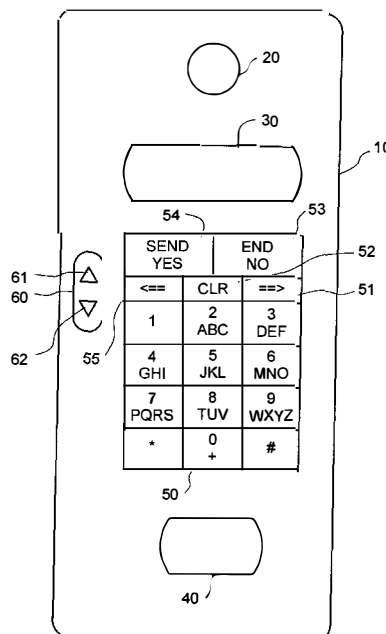
A man-machine interface (MMI) help and search tool in association with a menu structure and selection capability is disclosed. According to an exemplary embodiment, the mobile phone and more specifically the MMI are provided with a help search function to instruct the user how to find, activate, or select a desired function of the phone. The user may search for any and all commands regarding a specific subject of interest to the user. The search tool is intelligent and may be used to identify a specific command or function or to conduct a search based on a letter or partial command to provide listings and instructions for any number or series of related commands in a specific subject area. When the user has found the desired command the search tool may be used to explain how the command is accessed and activated and allow the user to automatically go to that menu or execute that command. The search tool can easily be accessed from any number of menus for example, via a hard or soft button can be placed in a search mode and use the initials of the functions or commands as to find and execute a desired function quickly without having to step through various levels of menus.

(56) **References Cited**

U.S. PATENT DOCUMENTS

4,291,198	9/1981	Anderson et al. .	
4,872,196	10/1989	Royer et al. .	
4,899,368	2/1990	Krohn et al. .	
5,371,779	12/1994	Kobayashi .	
5,422,656	6/1995	Allard et al. .	
5,432,902	7/1995	Matsumoto .	
5,481,595	1/1996	Ohashi et al. .	
5,561,705	10/1996	Allard et al. .	
5,568,536	10/1996	Tiller et al. .	
5,594,778	1/1997	Schaupp, Jr. et al. .	
5,761,610	* 6/1998	Sorensen et al.	455/575
5,797,098	* 8/1998	Schroeder et al.	455/464
5,826,199	* 10/1998	Maeda	455/550

23 Claims, 6 Drawing Sheets



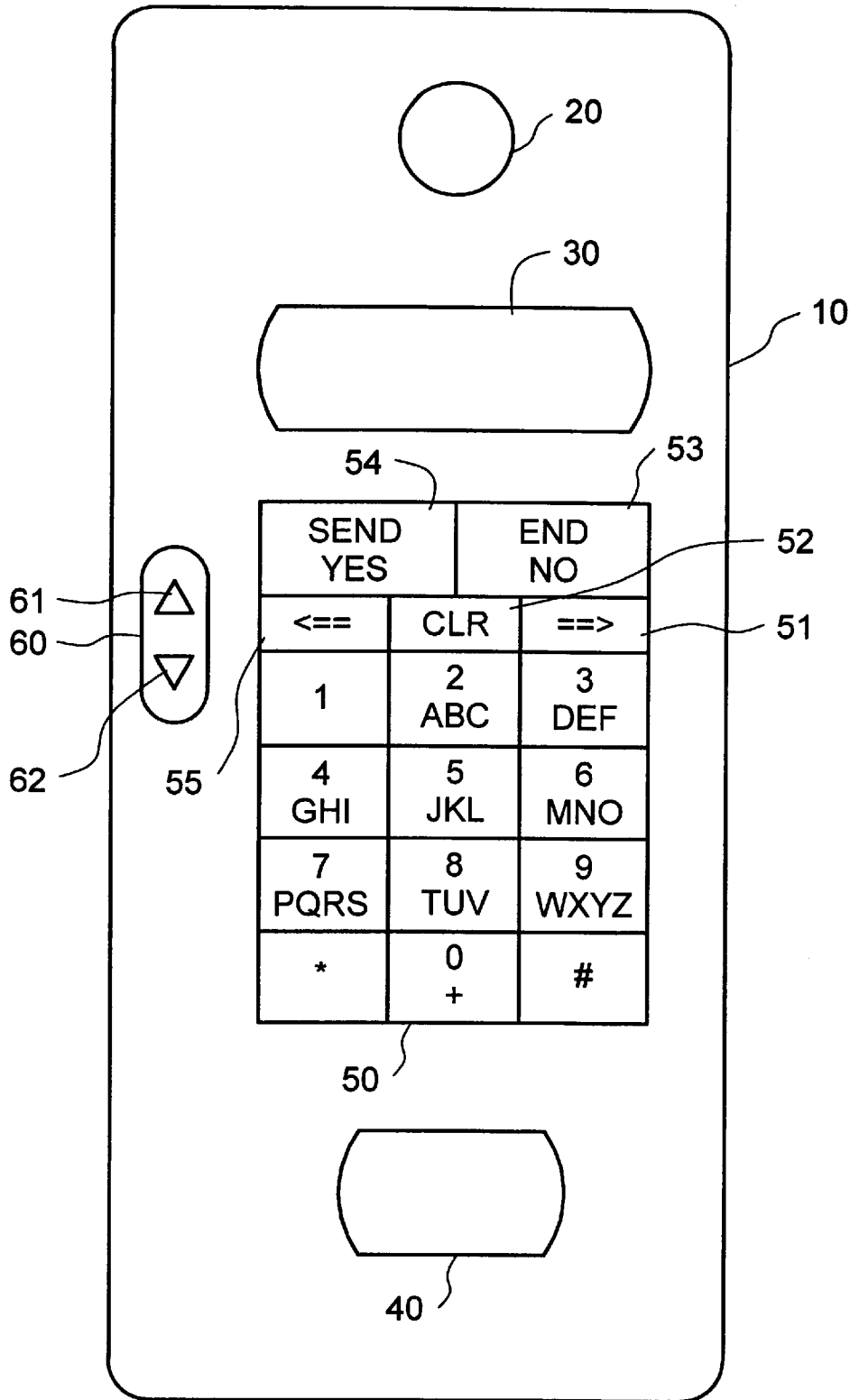


FIG. 1

FIG. 2A

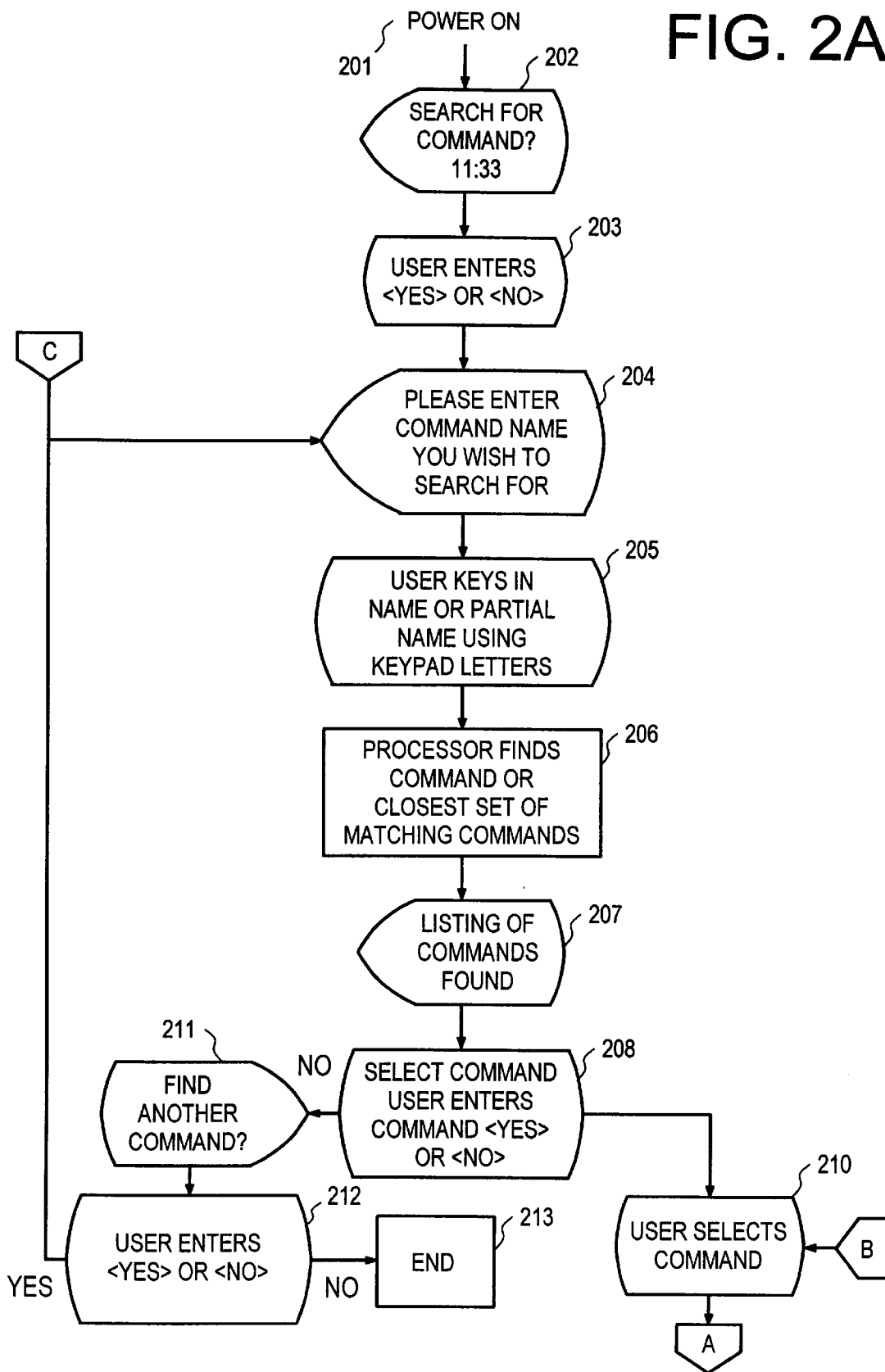
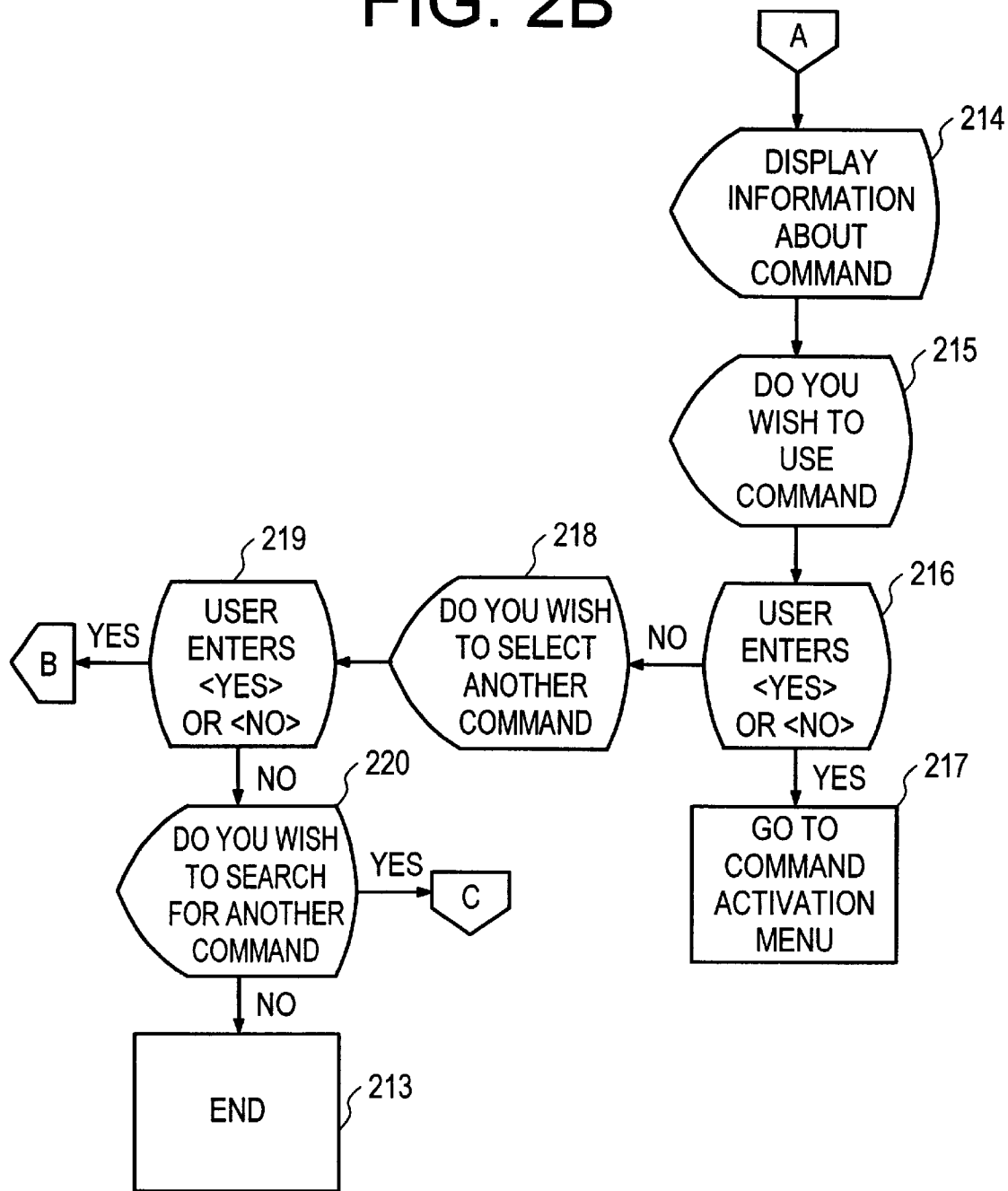


FIG. 2B



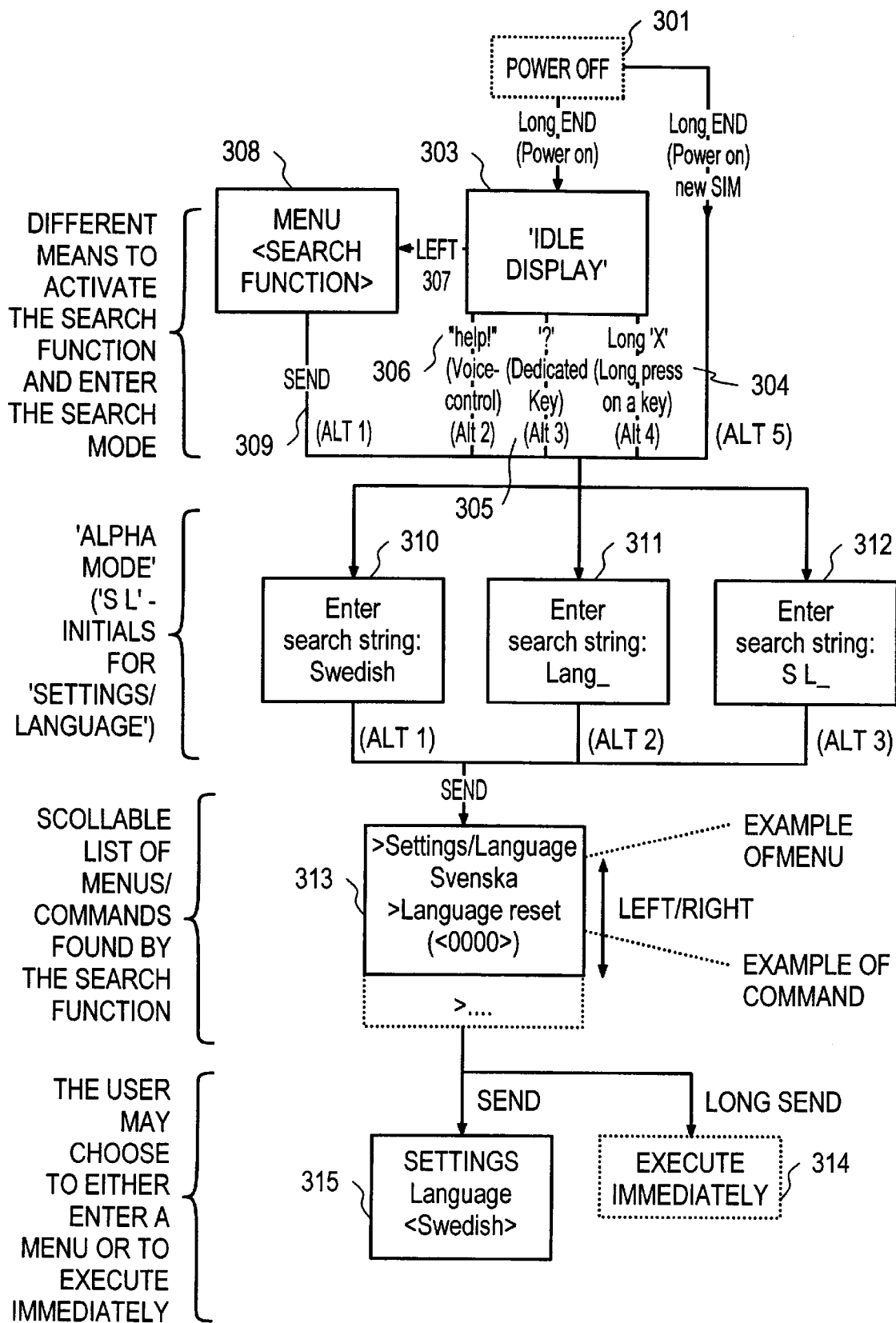


FIG. 3

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.