

(12) United States Patent
Pearce et al.

(10) Patent No.: US 6,243,468 B1
(45) Date of Patent: Jun. 5, 2001

(54) SOFTWARE ANTI-PIRACY SYSTEM THAT ADAPTS TO HARDWARE UPGRADES

(75) Inventors: David B. Pearce, Woodinville, WA (US); Aidan Hughes, Houston, TX (US)

(73) Assignee: Microsoft Corporation, Redmond, WA (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.

(21) Appl. No.: 09/070,518

(22) Filed: Apr. 29, 1998

(51) Int. Cl.⁷ H04K 1/00

(52) U.S. Cl. 380/255; 380/258; 380/44; 380/266

(58) Field of Search 705/26, 57; 713/187, 713/190, 200, 201; 455/410; 380/250, 27, 258; 707/9-10, 203; 709/229; 711/100

(56) References Cited

U.S. PATENT DOCUMENTS

5,199,066	*	3/1993	Logan .	
5,357,573	*	10/1994	Walters	705/56
5,379,343	*	1/1995	Grube et al.	455/410
5,491,804	*	2/1996	Heath et al.	710/7
5,502,831	*	11/1998	Grube et al.	711/100
5,509,070	*	4/1996	Schull	705/54
5,666,411	*	9/1997	McCarty	705/51
5,754,864	*	5/1998	Hill	705/26
5,757,907	*	5/1998	Cooper et al.	
5,761,649	*	6/1998	Hill	705/27
5,835,911	*	11/1998	Nakagawa	707/203
6,041,411	*	3/2000	Wyatt .	

FOREIGN PATENT DOCUMENTS

0 844 549 A1 * 5/1998 (EP) G06F/1/00

* cited by examiner

Primary Examiner—V. Millin

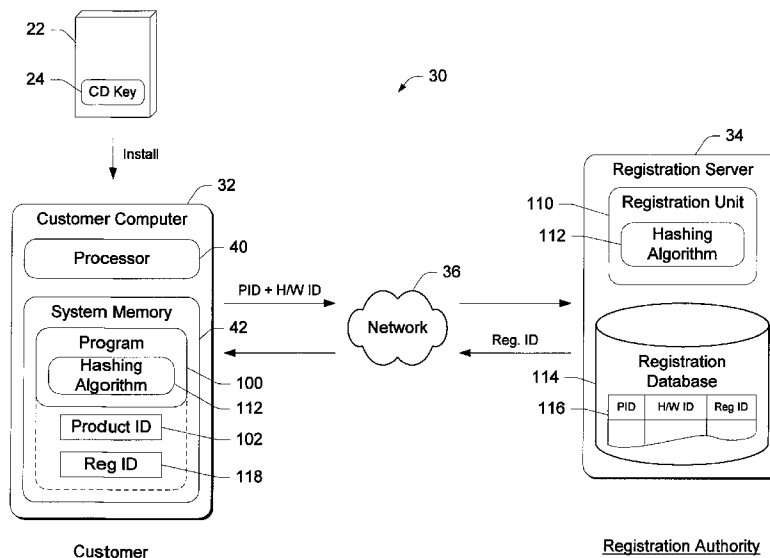
Assistant Examiner—Cuong H. Nguyen

(74) Attorney, Agent, or Firm—Lee & Hayes, PLLC

(57) ABSTRACT

An anti-piracy system reduces the opportunity for piracy and illicit use of software products by requiring each software product to be registered for a single computer. If a user attempts to install the software product on another computer, the software product will recognize a different hardware composition and disable itself. During installation, the software product generates a hardware ID that identifies the set of hardware components and sends it and a product ID to a registration authority. The registration authority computes a registration ID from the product ID and the hardware ID and sends the registration ID back to the software product. Each time the software product is subsequently launched, the software product computes its own test ID from the product ID and hardware ID using the same algorithm employed by the registration authority. The software product then compares the test ID to the registration ID. If the two match, the software product is enabled; otherwise, if no match occurs, the software product is locked. The system flexibly accommodates a situation in which the user upgrades one or a few components in the computer without creating a new machine. The software product determines whether a new set of hardware components in the computer is substantially different from the original set of hardware components. If not substantially different, the upgraded computer is more like the original computer and the software product is permitted to operate; otherwise, the computer more resembles a new computer and the software product is prevented from operating.

39 Claims, 6 Drawing Sheets



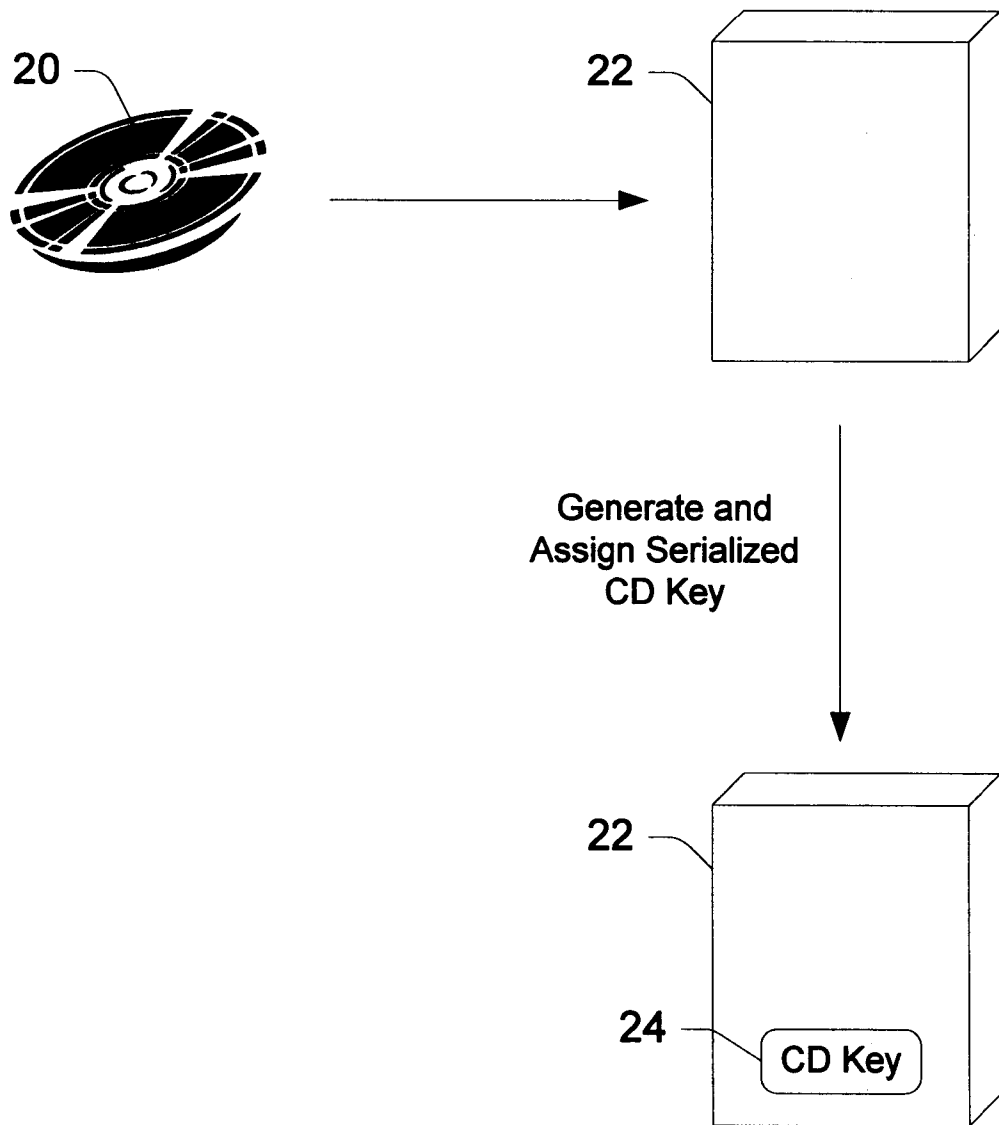


Fig. 1
Prior Art

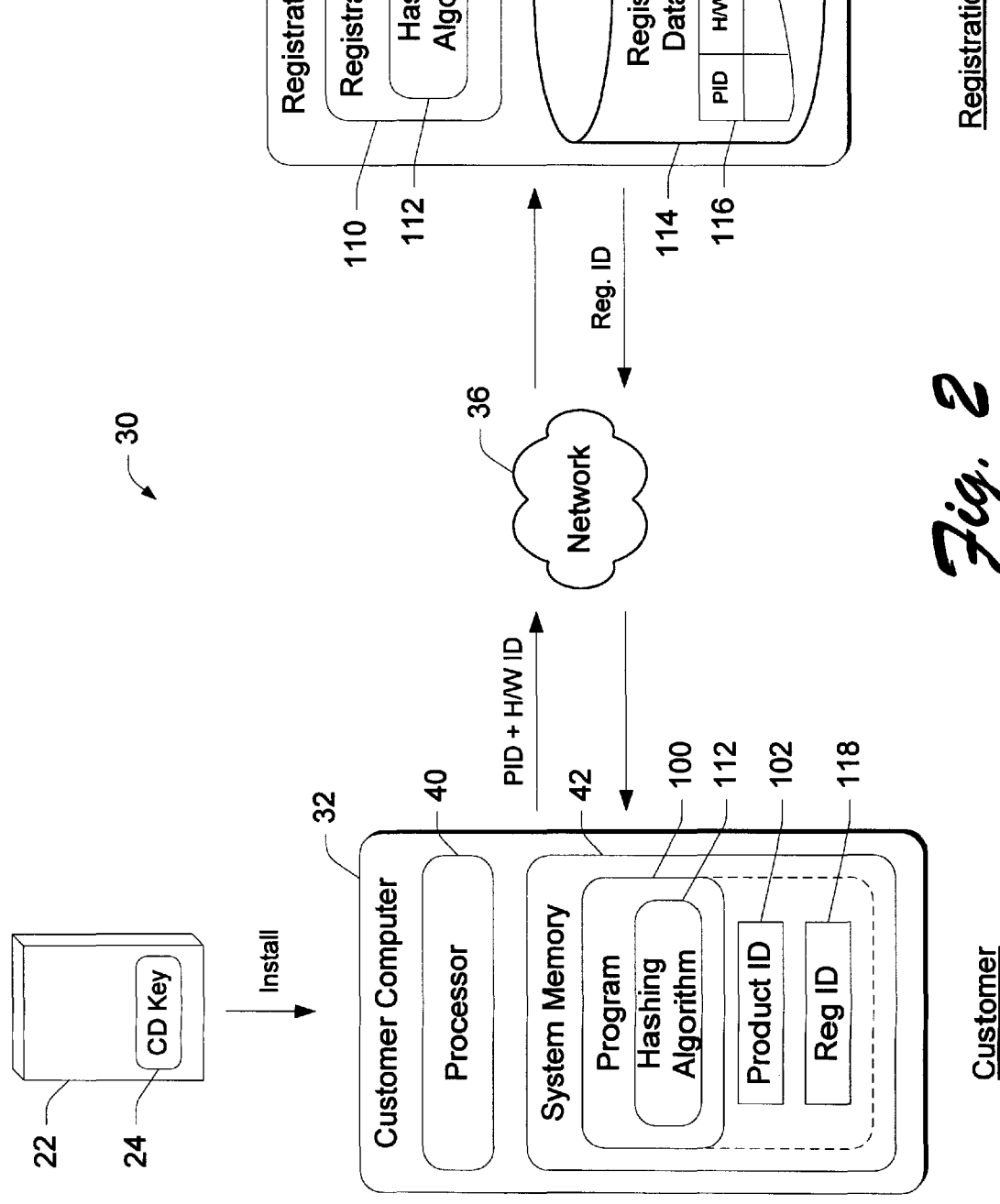
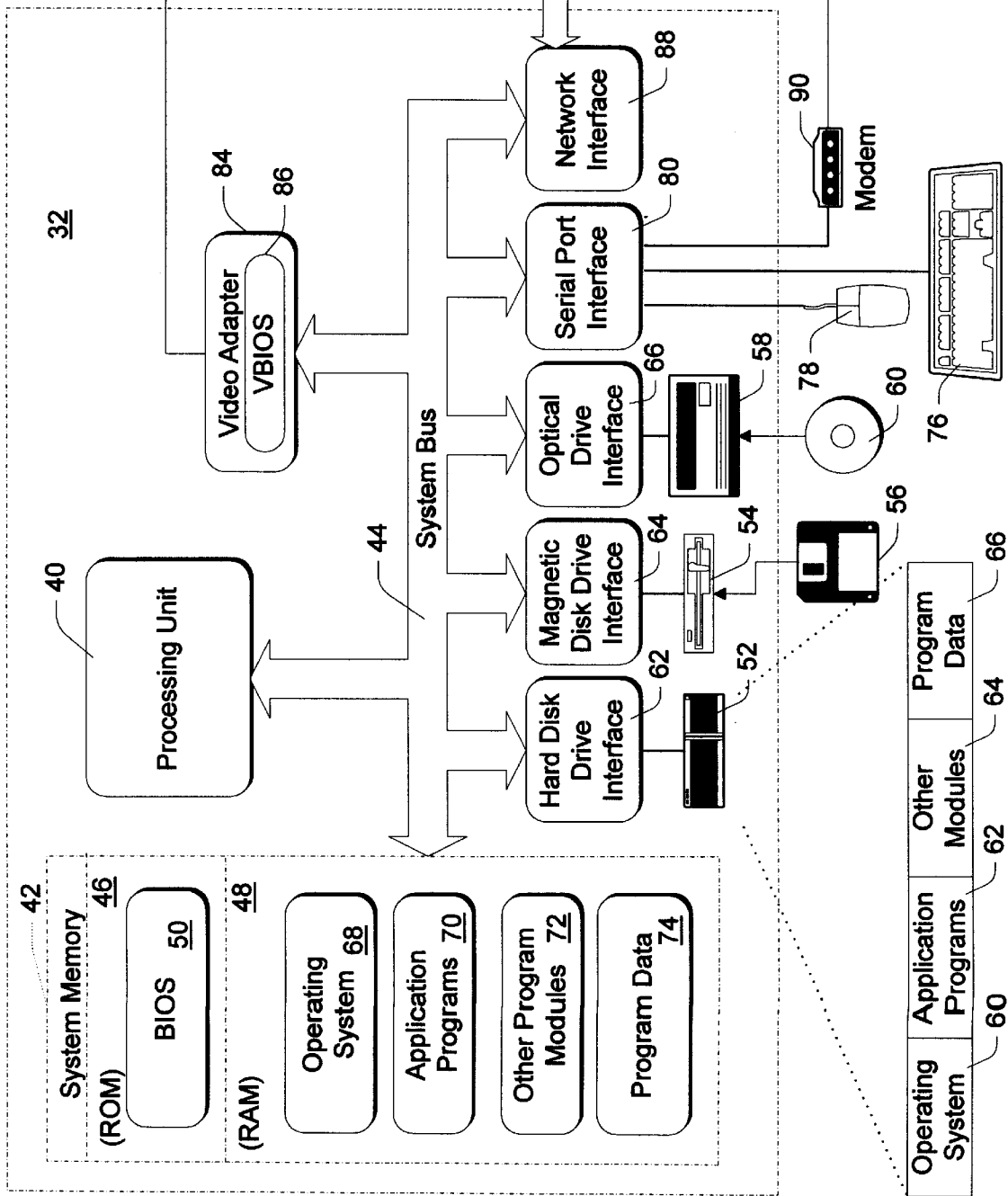


Fig. 2



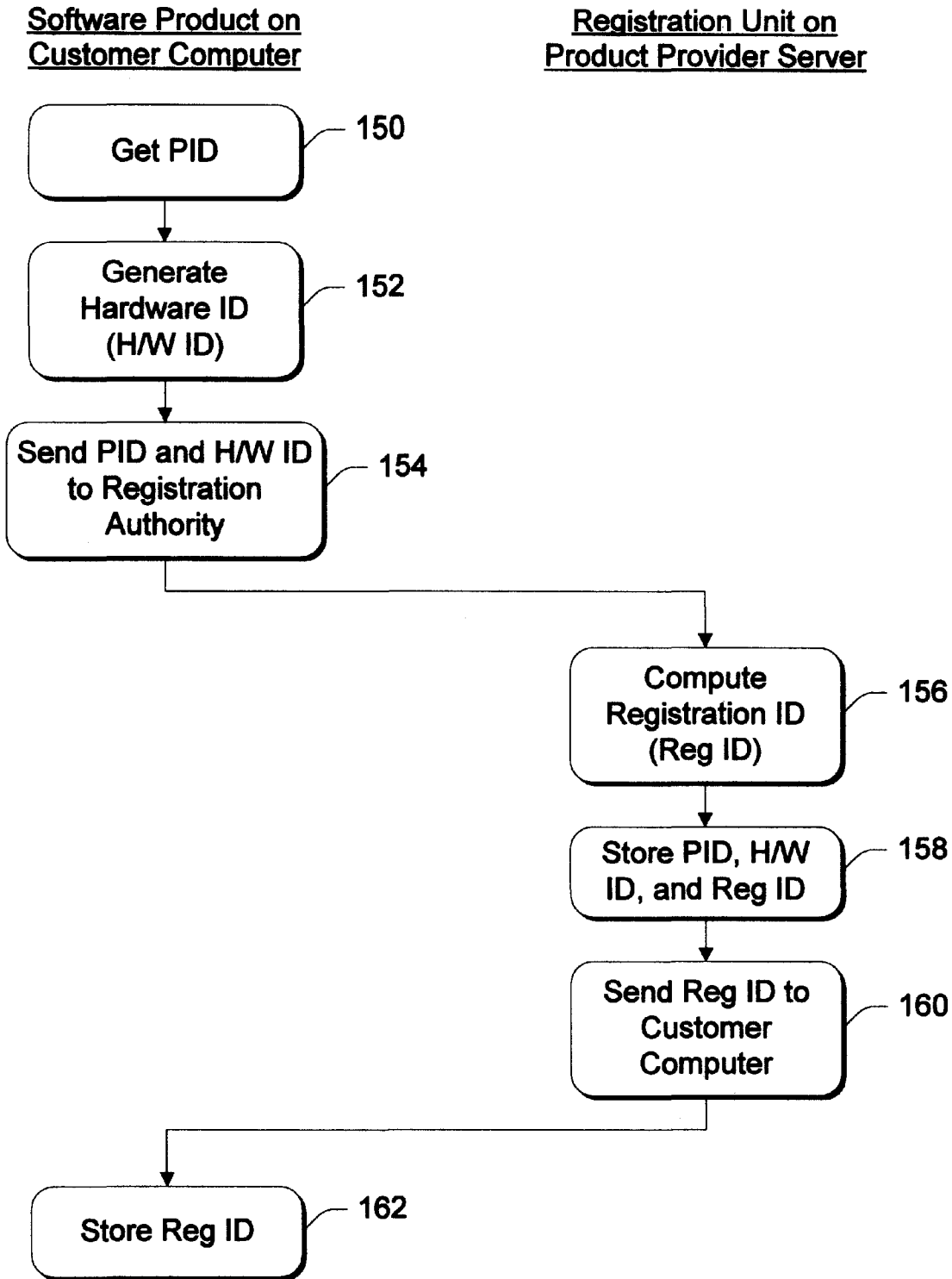


Fig. 4

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.