

US006230194B1

(12) United States Patent

Frailong et al.

(10) Patent No.: US 6,230,194 B1

(45) **Date of Patent:** May **8, 2001**

(54) UPGRADING A SECURE NETWORK INTERFACE

(75) Inventors: **Jean-Marc Frailong**, Palo Alto; **Charles A Price**, San Jose: **Jose**

Charles A. Price, San Jose; Joseph John Tardo, Palo Alto, all of CA (US)

(73) Assignee: Freegate Corporation, Sunnyvale, CA

(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.:	08/897,214
------------	------	------------

(22)	Filed:	T1	11	1997
1221	rneu.	.i ui.	14.	177/

(51)	Int. Cl. ⁷	 G06F 15/177
2	** * **	

(52) **U.S. Cl.** **709/220**; 709/221; 709/222

(56) References Cited

U.S. PATENT DOCUMENTS

5,144,664	*	9/1992	Esserman et al	380/20
5,155,847	*	10/1992	Kirouac et al 70	09/221
5,564,051	*	10/1996	Halliwell et al 3'	70/401

5,671,355	*	9/1997	Collins	709/250
5,689,640	*	11/1997	Okanoue	709/221
5,699,350	*	12/1997	Kraslavskyy	370/254
5,706,431	*	1/1998	Otto	709/221
5,790,548	*	8/1998	Sistanizadeh et al	370/401
5,819,042	*	10/1998	Hansen	709/222
5,845,077	*	12/1998	Fawcett	709/221

^{*} cited by examiner

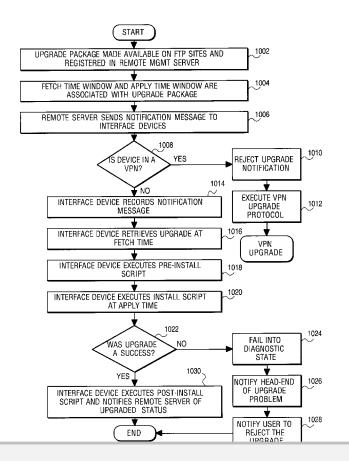
Primary Examiner—Saleh Najjar

(74) Attorney, Agent, or Firm—Blakely, Sokoloff, Taylor & Zafman

(57) ABSTRACT

The present invention discloses a system for upgrading the software contents of a network interface device connecting a client computer system to an external network. The network interface device is configured for the client system by automated procedures and protocols initiated from a remote server. Software programs within the network interface device provide transparent communication between the client computer system and services available on the external network. Similar software programs and a configuration database within the network interface device provide transparent communication between the client computer system and the remote server.

19 Claims, 15 Drawing Sheets





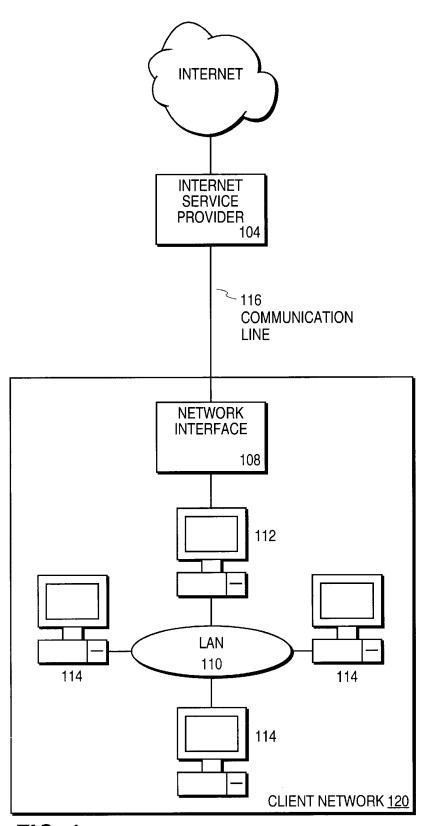


FIG. 1 (PRIOR ART)



May 8, 2001

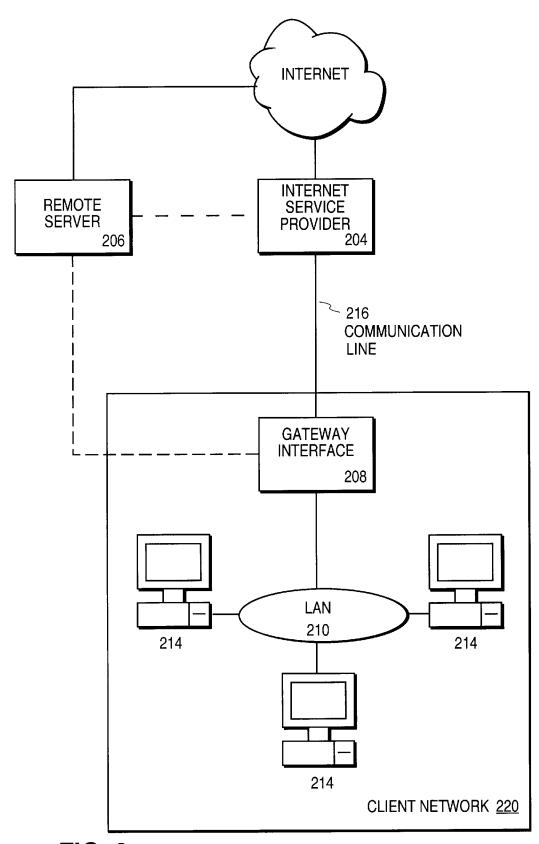
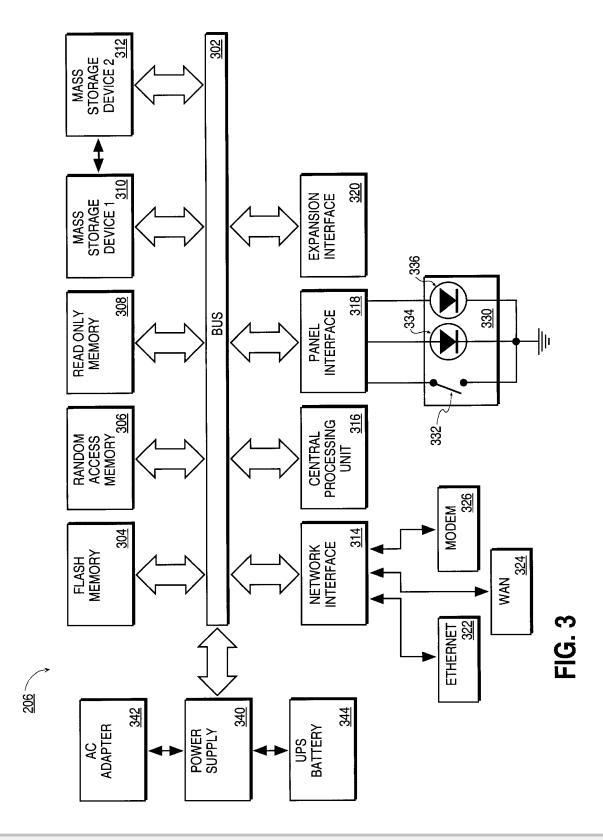


FIG. 2







<u>400</u>

RUNTIME

406

- CONSOLE-LESS OPERATING SYSTEM
- MANAGEMENT DAEMONS/SERVICES FOR SYSTEM CONTROL

KERNEL

404

- HIGH-LEVEL HARDWARE DRIVERS
- TIMING AND SCHEDULING FUNCTIONS
- FIREWALL SUPPORT

BIOS

402

- LOW-LEVEL DEVICE DRIVERS
- DIAGNOSTICS & MONITOR PROGRAMS
- BIOS EXTENSION FOR NEW CODE

FIG. 4



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.

