US006131116A

United States Patent [19]

Riggins et al.

[11] Patent Number: 6,131,116

[45] Date of Patent: *Oct. 10, 2000

[54] **SYSTEM AND METHOD FOR GLOBALLY ACCESSING COMPUTER SERVICES**

[75] Inventors: **Mark D. Riggins**, McLeansville, N.C.; **R. Stanley Bailes**, San Jose, Calif.; **Hong O. Bui**, Cupertino, Calif.; **David I. Cowan**, Menlo Park, Calif.; **Daniel I. Mendez**; **Mason Ng**, both of Mountain View, Calif.; **Sean Michael Quinlan**, San Francisco, Calif.; **Prasad Wagle**, Santa Clara, Calif.; **Christine C. Ying**, Foster City, Calif.; **Christopher R. Zuleeg**, San Jose, Calif.; **Joanna A. Aptekar-Strober**, Menlo Park, Calif.

[73] Assignee: **Visto Corporation**, Mountain View, Calif.

[*] Notice: This patent issued on a continued prosecution application filed under 37 CFR 1.53(d), and is subject to the twenty year patent term provisions of 35 U.S.C. 154(a)(2).

[21] Appl. No.: **08/766,307**

[22] Filed: **Dec. 13, 1996**

[51] **Int. Cl.^{7}** **G06F 15/16**

[52] **U.S. Cl.** **709/219**; 709/203

[58] **Field of Search** 395/200.33, 200.47, 395/200.57, 200.49, 200.59; 709/203, 217, 227, 229, 219

[56] **References Cited**

U.S. PATENT DOCUMENTS

4,831,582	5/1989	Miller et al.	707/104
5,220,603	6/1993	Parker	380/21
5,263,157	11/1993	Janis	707/9
5,581,749	12/1996	Hossain et al.	707/1

(List continued on next page.)

FOREIGN PATENT DOCUMENTS

2191505	6/1997	Canada	H04M 3/42

OTHER PUBLICATIONS

Article by Bellovin et al., entitled: "Network Firewalls" Published by IEEE Communications Magazine Sep. 1994, pp. 50–57.

Article by Steffen Stempel, entitled: "IPAccess–An Internet Service Access System for Firewall Installations" Published by IEEE Communications Magazine Feb. 16, 1995, pp. 31–41.

Article by Braun et al., entitled: "Web Traffic Characterization: an assessment of the impact of caching documents from NCSA's web server" Published by Elsevier Science B.V. 1995 pp. 37–51.

Article by Nelson et al., entitled: "Security for Infinite Networks" Published by IEEE Communications Magazine on Aug. 22, 1995, pp. 11–19.

Article by Greenwald et al., entitled: "Designing an Academic Firewall: Policy, Practice, and Experience with SURF" Published by IEEE Communications Magazine on Feb. 22, 1996, pp. 79–92.

Article by Kiuchi et al., entitled: "C–HTTP—The Development of a Secure, Closed HTTP–based Network on the Internet" Published by IEEE Proceedings of SNDSS on Feb. 22, 1996, pp. 64–75.

(List continued on next page.)

Primary Examiner—Mehmet B. Geckil
Attorney, Agent, or Firm—Graham & James LLP

[57] **ABSTRACT**

A system for communicating through a computer network. The system includes a communications engine for establishing a communications link with a server, a browser, coupled to the communications engine, for receiving applet information corresponding to a service from the server, and an applet engine for using the applet information to control user interface I/O of the service. The communications engine may confirm user access privileges before establishing a communications link between the client and the server. The communications engine receives configuration data, and configures client attributes using the configuration data to provide a user-specific user interface to the client. It will be appreciated that the system may be stored on a floppy disk or hard drive.

43 Claims, 10 Drawing Sheets

25
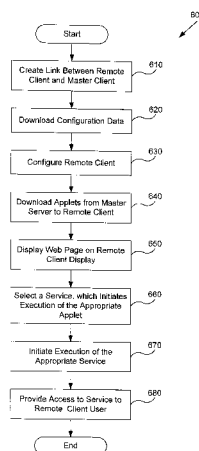
U.S. PATENT DOCUMENTS

5,613,012	3/1997	Hoffman et al.	382/115
5,627,658	5/1997	Connors et al.	358/407
5,644,354	7/1997	Thompson et al.	348/13
5,657,390	8/1997	Elgamal et al.	380/49
5,666,553	9/1997	Crozier	395/803
5,682,478	10/1997	Watson et al.	395/200.12
5,682,524	10/1997	Freund et al.	395/605
5,684,990	11/1997	Boothby	707/203
5,701,423	12/1997	Crozier	395/335
5,706,502	1/1998	Foley et al.	395/610
5,715,403	2/1998	Stefik	705/44
5,754,830	5/1998	Butts et al.	3995/500
5,757,916	5/1998	MacDoran et al.	380/25
5,768,510	6/1998	Gish	395/200.33
5,778,346	7/1998	Frid-Nielsen et al.	395/208
5,784,463	7/1998	Chen et al.	380/21
5,784,464	7/1998	Akiyama et al.	380/25
5,802,530	9/1998	Van Hoff	707/513
5,812,668	9/1998	Weber	380/24
5,815,683	9/1998	Vogler	395/500
5,828,840	10/1998	Cowan et al.	395/200.33

OTHER PUBLICATIONS

Article by S. Cobb, entitled: "Establishing Firewall Policy" Published by National Computer Security Assn. on Jun. 25–27, 1996, pp. 198–205.

Tanenbaum, Andrew S., "Computer Network", Third Edition, Prentice–Hall 1996, ISBN 0–13–349945–6, Chapter 7, Sections 7.1.4 to 7.1.6, pp. 597–618.

Knudsen, Jonathan, "Java Cryptography", First Edition, O'Reilly & Assoc. 1998, ISBN 1–56592–402–9, pp. 79–91.

Web page: www.verisign.com/press/product/isv.html, Verisign Press Release, "Versign Enhances Digital IDS to Enable Universal Website Login and One–Step Registration", Nov. 3, 1998, 3 pages.

Mark Brown, "Using Netscape 2", Que Corporation, 1995, pp. 885–907.

Douglas Kramer, "The Java Platform," Javas–Soft, May 1996, pp. 1–25.

Package java.applet; java.net http://www–nrg.ee.lbl.gov/jef/apibook/javaf.htm javam.htm Apr. 22, 1996.

Servlet Tutorial http://mech.postech.ac.kr/Java/java.sun-.com/products/jeeves/current release//doc/servlet–tutorial/servlet–tutorial.html Aug. 20, 1996.
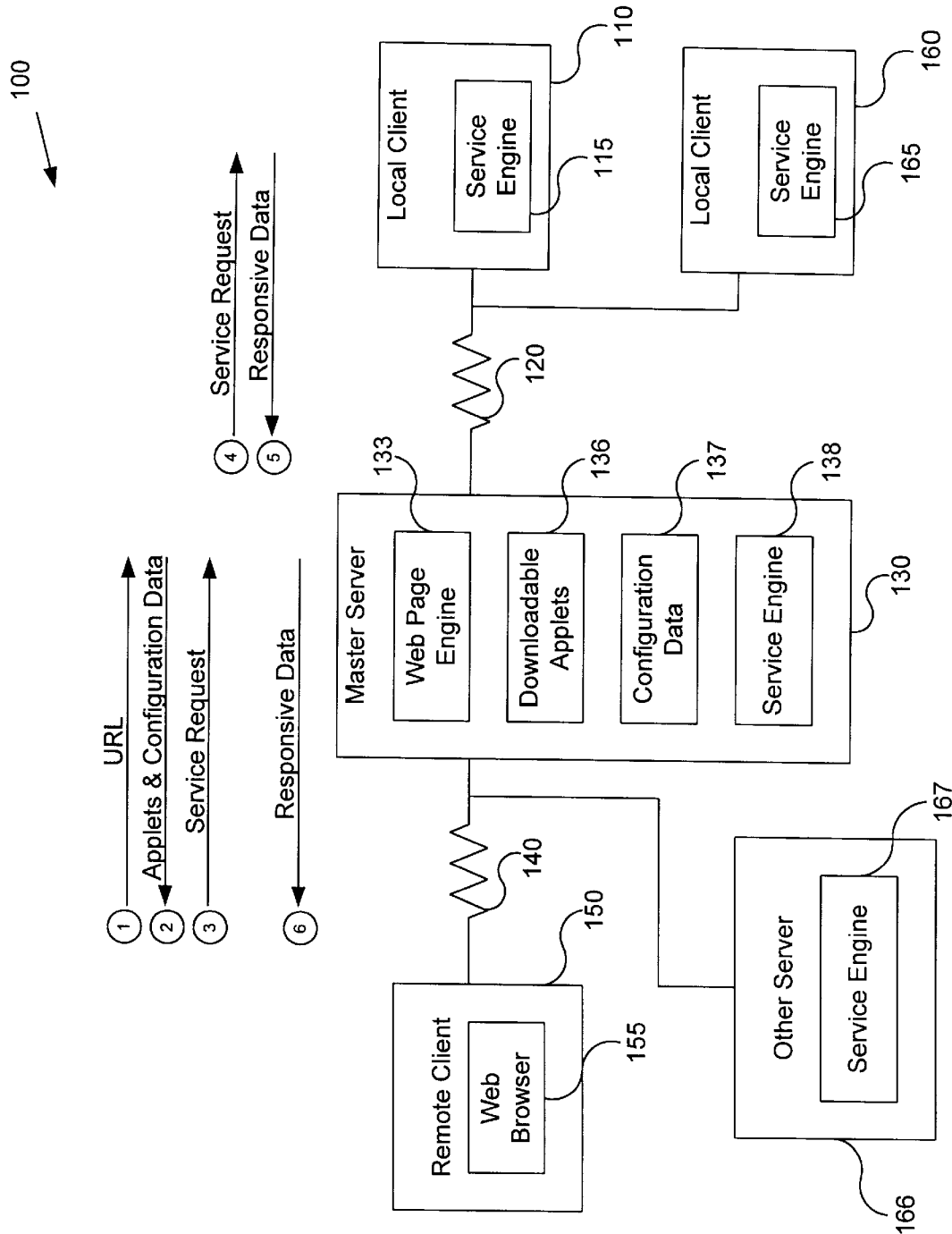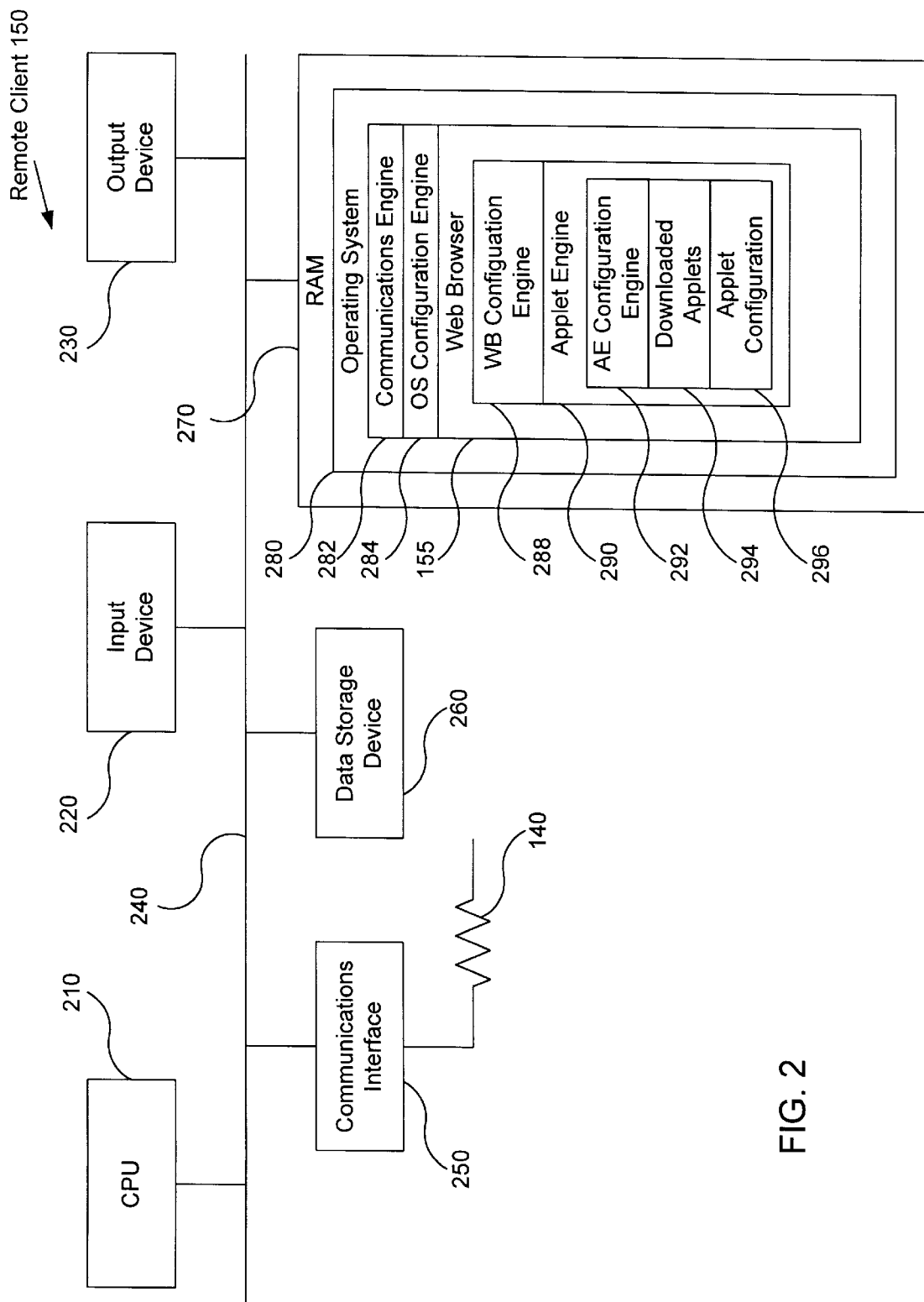
100

Service Request

Responsive Data

Local Client

Service Engine — 115

110

Local Client

Service Engine — 165

160

120

4

5

URL

Applets & Configuration Data

Service Request

Responsive Data

133

136

137

138

Master Server

Web Page Engine

Downloadable Applets

Configuration Data

Service Engine

130

1

2

3

6

140

150

Remote Client

Web Browser

155

Other Server

Service Engine — 167

166

FIG. 1

Remote Client 150

Output Device — 230

Input Device — 220

CPU — 210

Data Storage Device — 260

Communications Interface — 250

140

240

270

RAM

Operating System

Communications Engine

OS Configuration Engine

Web Browser

WB Configuation Engine

Applet Engine

AE Configuration Engine

Downloaded Applets

Applet Configuration

280

282

284

155

288

290

292

294

296

FIG. 2

FIG. 3A

DOCKET ALARM
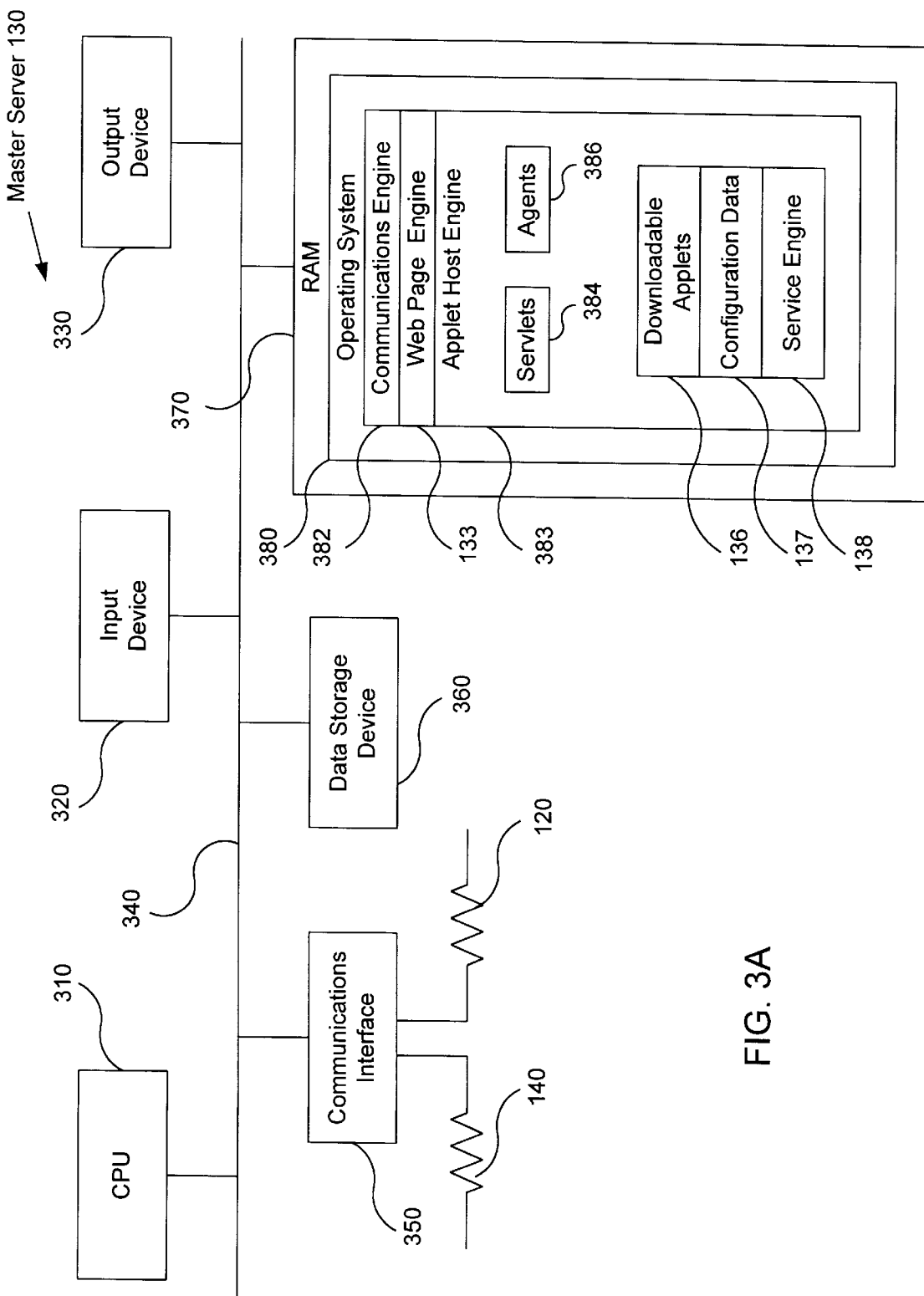
Explore Litigation Insights

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.

fastcase®
Smarter legal research.