US005864853A

United States Patent [19]

Kimura et al.

[11] **Patent Number: 5,864,853**

[45] **Date of Patent: *Jan. 26, 1999**

[54] **PORTABLE FILE SYSTEM OPERABLE UNDER VARIOUS COMPUTER ENVIRONMENTS**

[75] Inventors: **Tetsuro Kimura**, Kanagawa-ken; **Toshio Okamoto**, Tokyo, both of Japan

[73] Assignee: **Kabushiki Kaisha Toshiba**, Kawasaki, Japan

[*] 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.: **528,056**

[22] Filed: **Sep. 14, 1995**

[30] **Foreign Application Priority Data**

Sep. 14, 1994 [JP] Japan 6-219656

[51] **Int. Cl.**[6] **G06F 17/30**

[52] **U.S. Cl.** **707/10**; 707/104

[58] **Field of Search** 345/173; 364/705.06, 364/900, 401, 200; 379/58; 395/601, 610, 616, 613; 707/10, 102, 104

[56] **References Cited**

U.S. PATENT DOCUMENTS

4,247,908	1/1981	Lockhart, Jr. et al.	364/900
4,277,837	7/1981	Stuckert	364/900
5,058,000	10/1991	Cox et al.	364/200
5,339,239	8/1994	Manabe et al.	364/401
5,379,057	1/1995	Clough et al.	345/173
5,410,690	4/1995	Kawata	395/600
5,452,240	9/1995	Roca et al.	364/705.06
5,469,496	11/1995	Emery et al.	379/58

OTHER PUBLICATIONS

Verjinski, Phase "A Portable Host Access System Environment", IEEE, pp. 806–809, Oct. 1989.

Orchard, Predective Motion–Field Segmentation for Image Sequence Coding, IEEE, pp. 54–79, Jan. 1993.

Peters et al, On Generalization in Networking Software to Encourage Code Portability, IEEE, pp. 261–266, Apr. 1989.

Bernett et al, Uniform Communication Software Using TCP/IP, IEEE, pp. 1715–1718, May 1989.

Deadhar, Distributed Analyzer Architecture Permits Real–Time Monitoring of Heterogeneous Local Area Networks, IEEE, pp. 634–637, Nov. 1989.

Kuroyanagi, Adaptive and Portable TDMA Lan with a Bus Topology, IEEE, pp. 1808–1811, Dec. 1988.

Vuong, A Low Cost and Portable Local Area Network for Interconnecting PC's using Electric Power lines, IEEE, pp. 192–201, Feb. 1989.

Cole et al, An Architecture for a Mobile OSI Mail Access System, IEEE, pp. 249–256, Feb. 1989.

Satyanarayanan, A Highly Available File System for a Distributed Workstation Environment, IEEE, pp. 114–117, Sep. 1989.

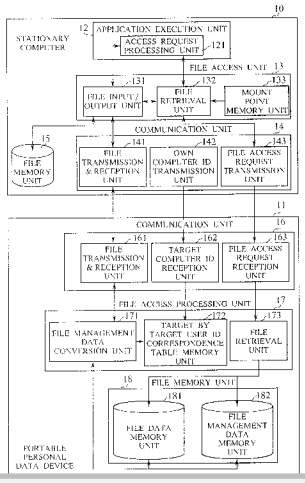
Pasierb, MSE Network Control in a Mobile Environment, IEEE, pp. 869–873, Oct. 1993.

Primary Examiner—Thomas G. Black
Assistant Examiner—Frantz Coby
Attorney, Agent, or Firm—Foley & Lardner

[57] **ABSTRACT**

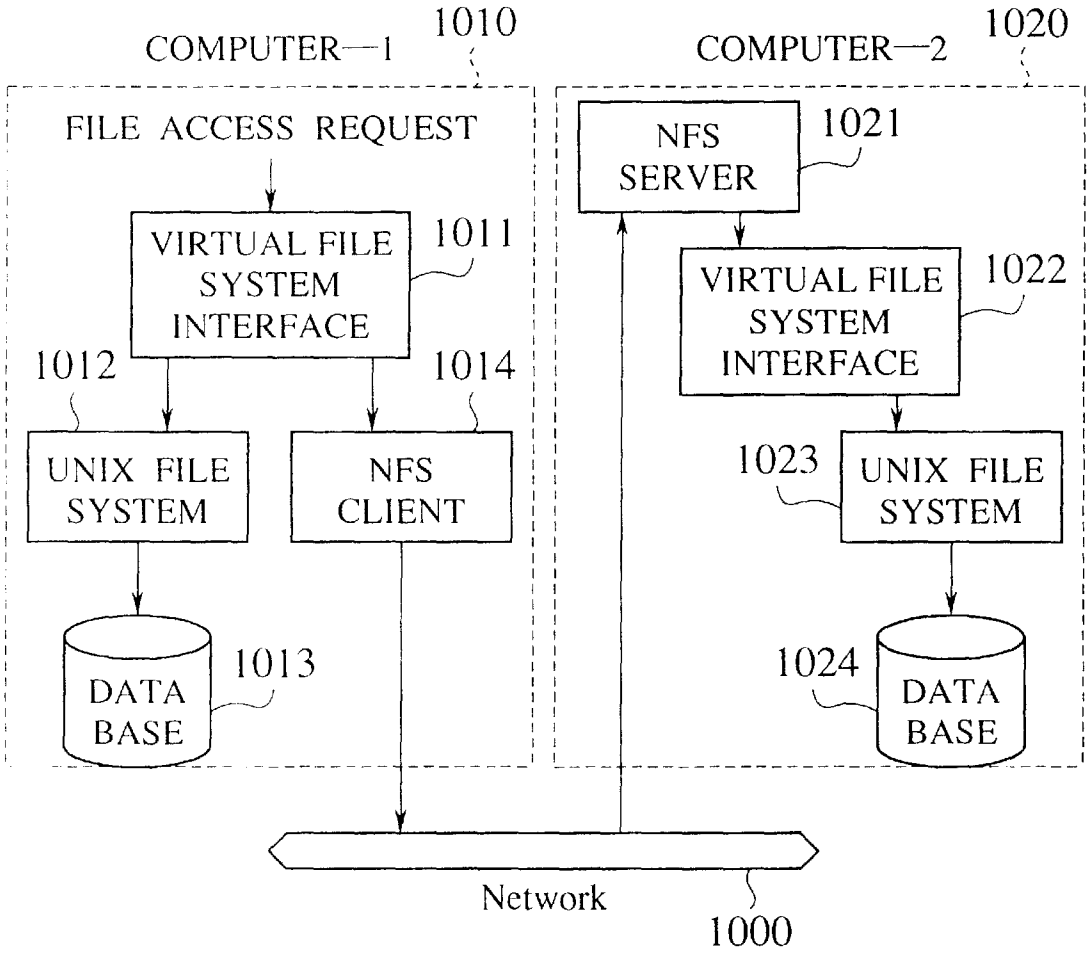
A portable file system capable of sharing data among various computer environments, such that a user can freely utilize his own data under various computer environments. The system includes at least one portable data processing device having a memory unit for storing file data and file management data of portable side files; at least one stationary data processing device having a processing unit for executing desired processing by making accesses to the portable side files; and a conversion unit for converting at least one of the file data and the file management data of each requested file among the portable side files for which a file access request is issued by the processing unit into a form suitable for the stationary data processing device, such that the processing unit makes an access to each requested file among the portable side files according to converted file data/file management data obtained by the conversion unit. The conversion unit may be provided in the portable data processing device side, or in the stationary data processing device side.

58 Claims, 25 Drawing Sheets



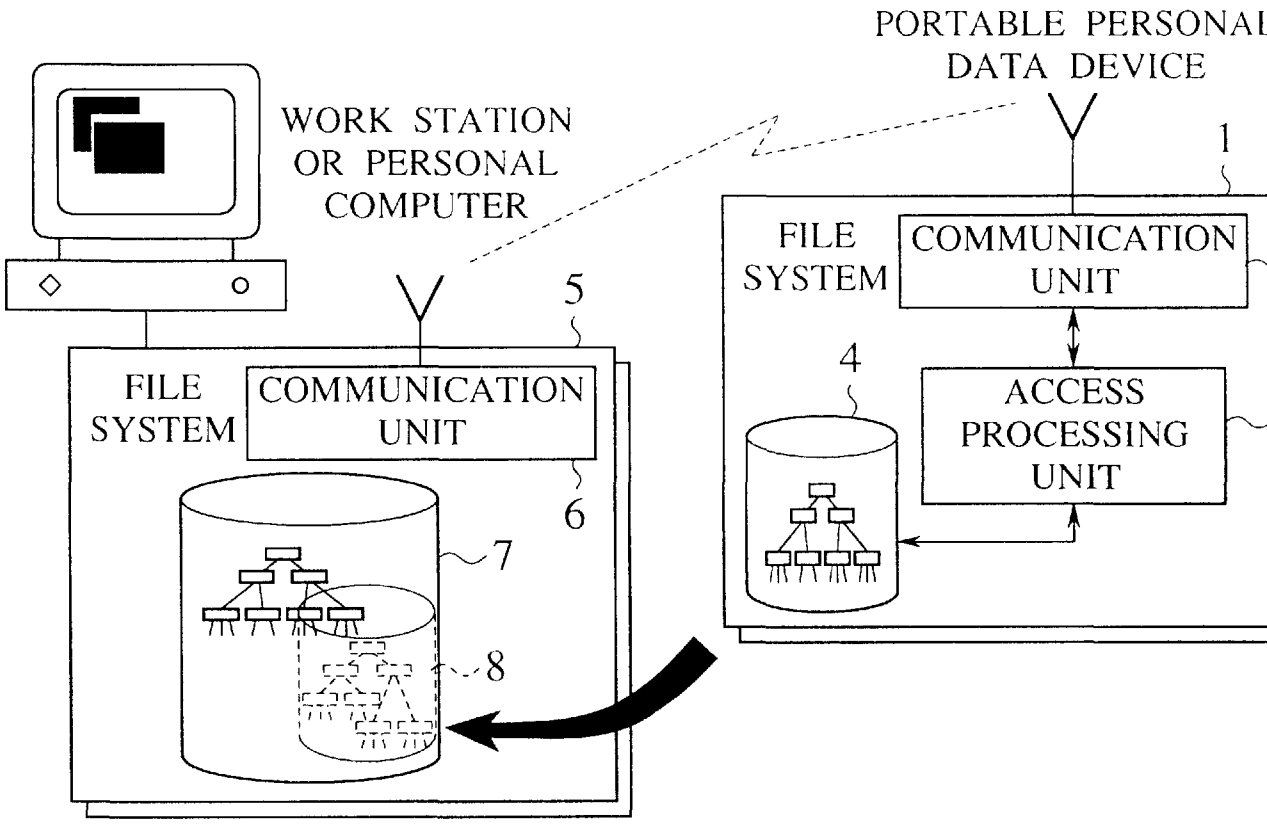
DOCKET ALARM
Find authenticated court documents without watermarks at docketalarm.com.

FIG. 1
PRIOR ART



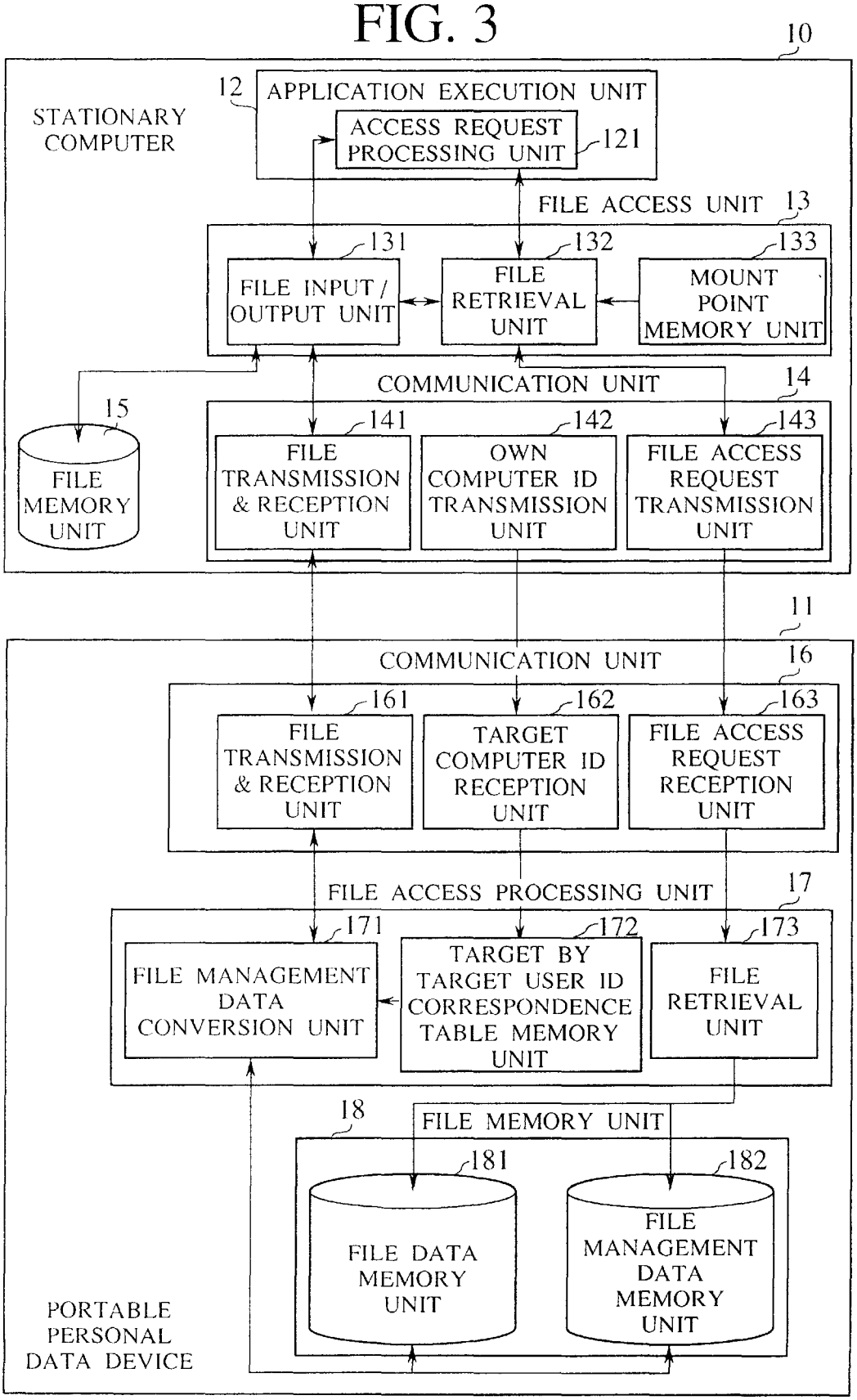
DOCKET ALARM
Find authenticated court documents without watermarks at docketalarm.com.

FIG. 2



DOCKET ALARM
Find authenticated court documents without watermarks at docketalarm.com.

FIG. 3



DOCKET ALARM
Find authenticated court documents without watermarks at docketalarm.com.

FIG. 4

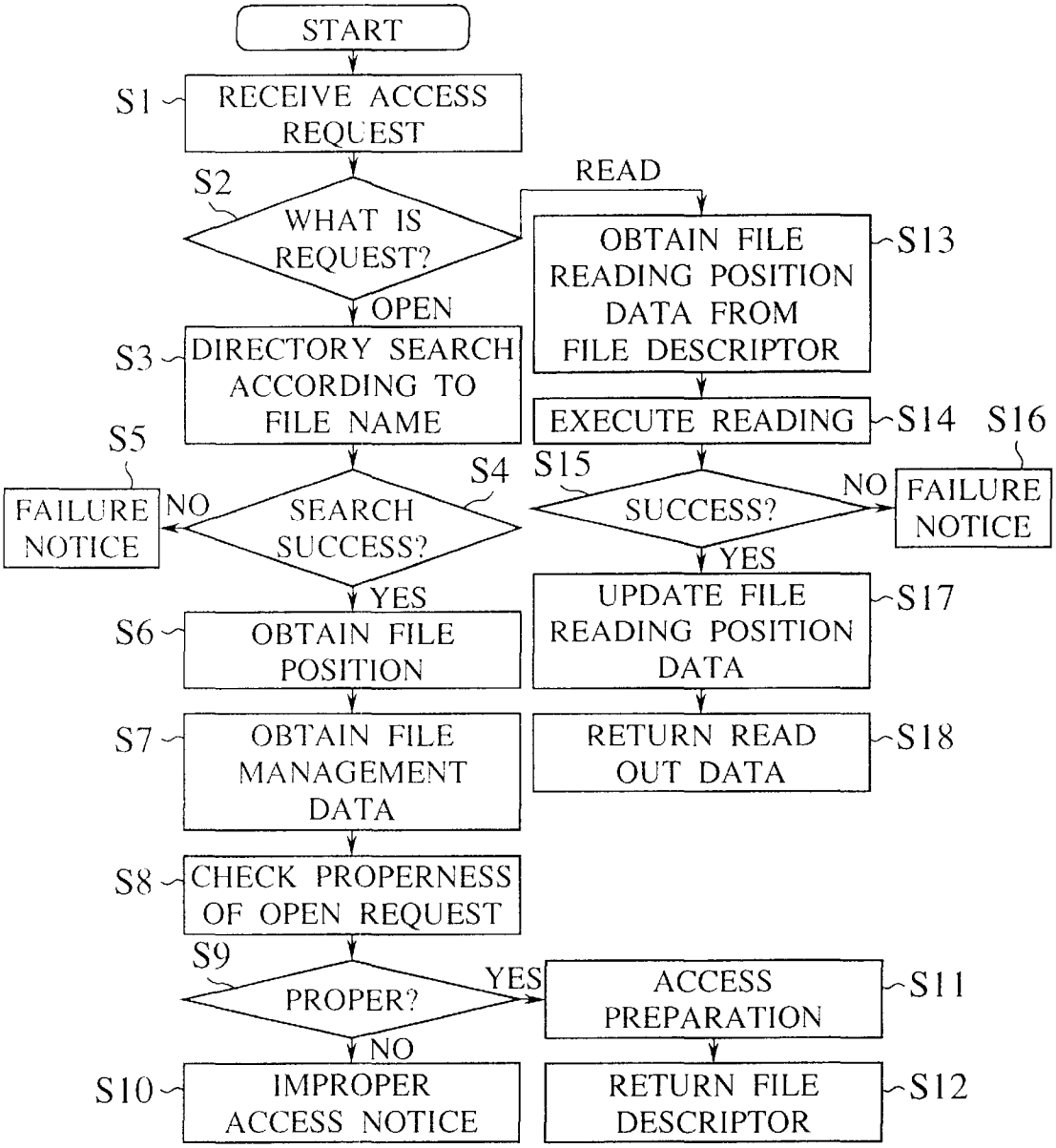


FIG. 5

HOST NAME	OS	USER ID	GROUP ID
WORK STATION A	Unix	105	300
WORK STATION B	Unix	300	1000
PERSONAL COMPUTER D	MS—DOS	—	—

DOCKET ALARM Find authenticated court documents without watermarks at docketalarm.com.

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.