

EXHIBIT 1

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

(10) **Patent No.:** **US 6,218,930 B1**
(45) **Date of Patent:** **Apr. 17, 2001**

(54) **APPARATUS AND METHOD FOR REMOTELY POWERING ACCESS EQUIPMENT OVER A 10/100 SWITCHED ETHERNET NETWORK**

(75) Inventors: **Boris Katzenberg**, Trumbull; **Joseph A. Deptula**, Watertown, both of CT (US)

(73) Assignee: **Merlot Communications**, Bethel, CT (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.: **09/520,350**

(22) Filed: **Mar. 7, 2000**

Related U.S. Application Data

(60) Provisional application No. 60/123,688, filed on Mar. 10, 1999.

(51) **Int. Cl.⁷** **M04M 11/04**

(52) **U.S. Cl.** **340/310.01; 340/310.02; 340/310.06; 340/310.07; 379/386; 379/400; 379/32**

(58) **Field of Search** **340/310.01, 310.07, 340/825.16, 310.02, 310.06; 379/386, 400, 32**

(56) **References Cited**

U.S. PATENT DOCUMENTS

5,144,544	9/1992	Jenneve et al. .	
5,289,359 *	2/1994	Ziermann	363/21
5,406,260 *	4/1995	Cummings et al.	340/568
5,461,671 *	10/1995	Sakuragi et al.	379/400
5,483,574 *	1/1996	Yuyama	379/32
5,608,792 *	3/1997	Laidler	379/386

* cited by examiner

Primary Examiner—Jeffery A. Hofsass

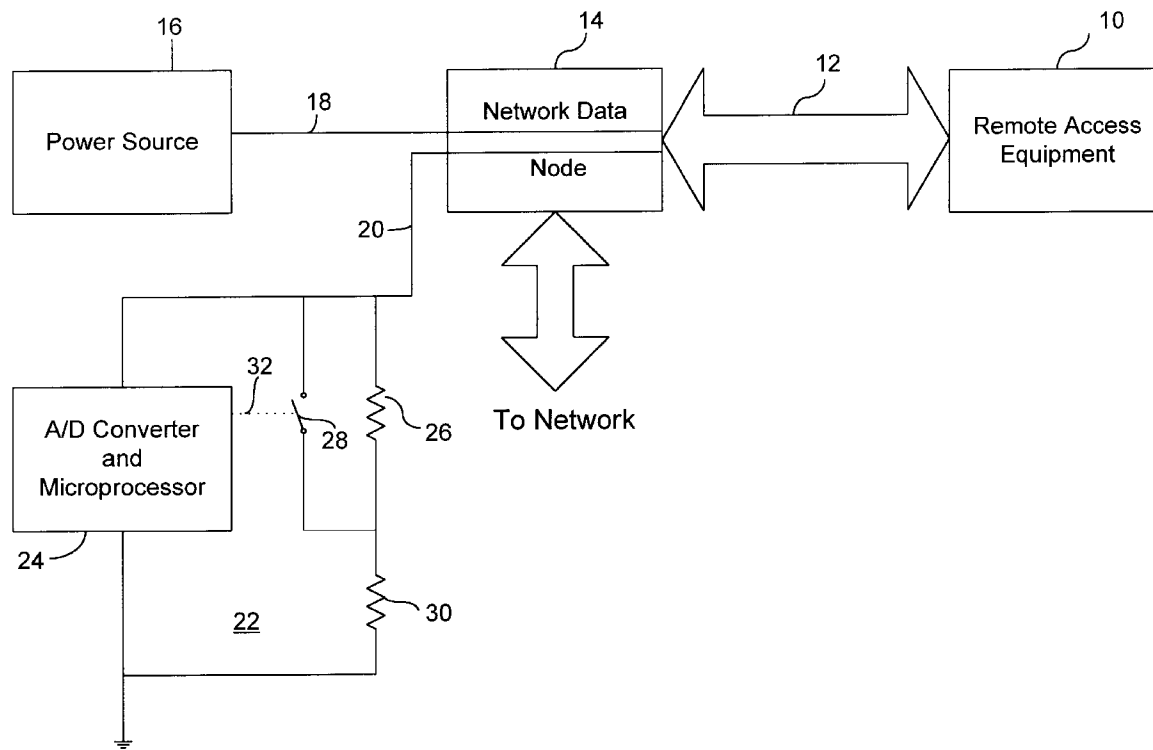
Assistant Examiner—Tai T. Nguyen

(74) *Attorney, Agent, or Firm*—William C. Crutcher

(57) **ABSTRACT**

Apparatus for remotely powering access equipment over a 10/100 switched Ethernet network comprises an Ethernet switch card with a phantom power supply for remote access equipment and added circuitry for automatic detection of remote equipment being connected to the network; determining whether the remote equipment is capable of accepting remote power in a non-intrusive manner; delivering the phantom power to the remote equipment over the same wire pairs that deliver the data signals, and automatically detecting if the remote equipment is removed from the network.

9 Claims, 3 Drawing Sheets



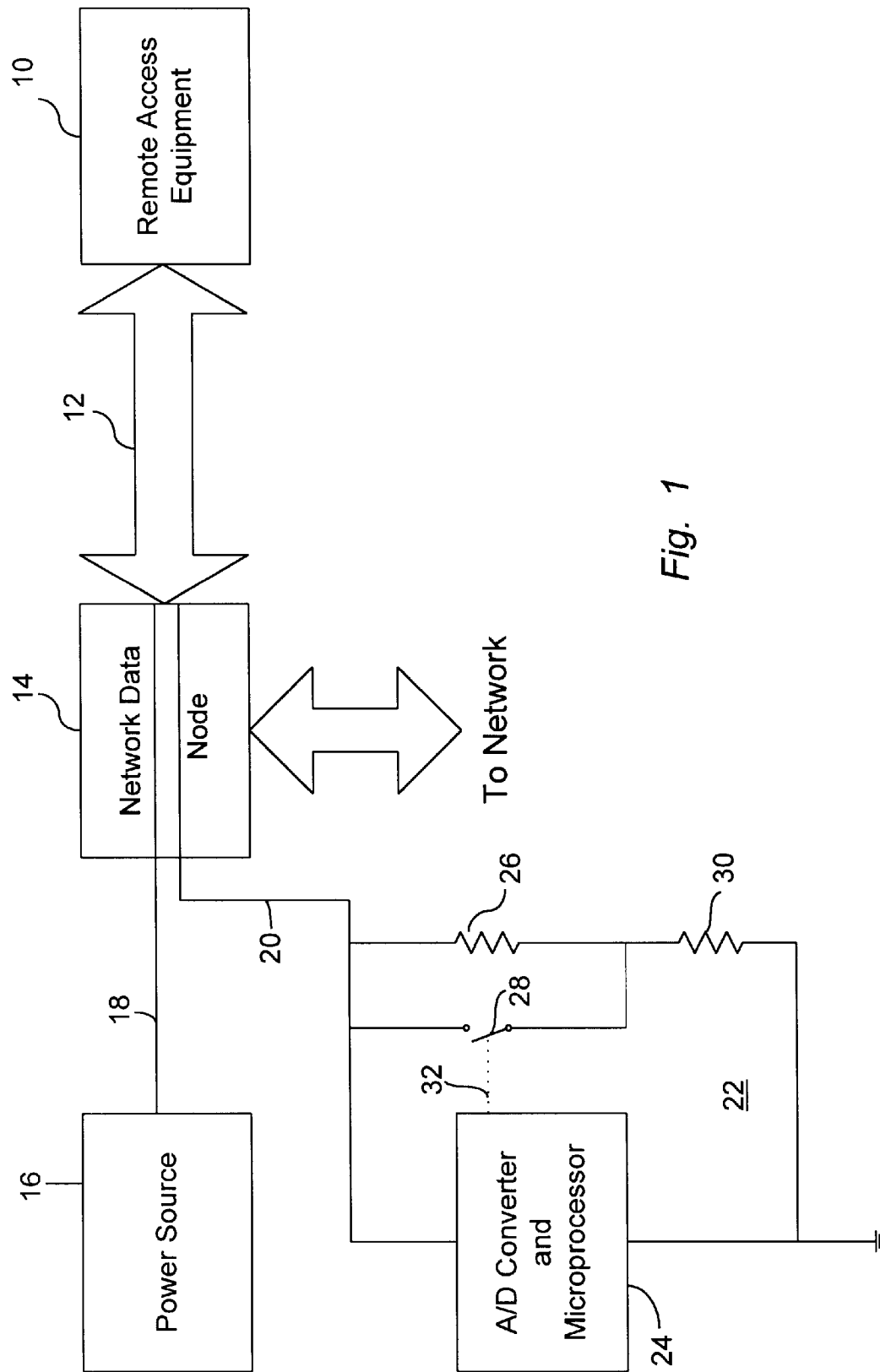


Fig. 1

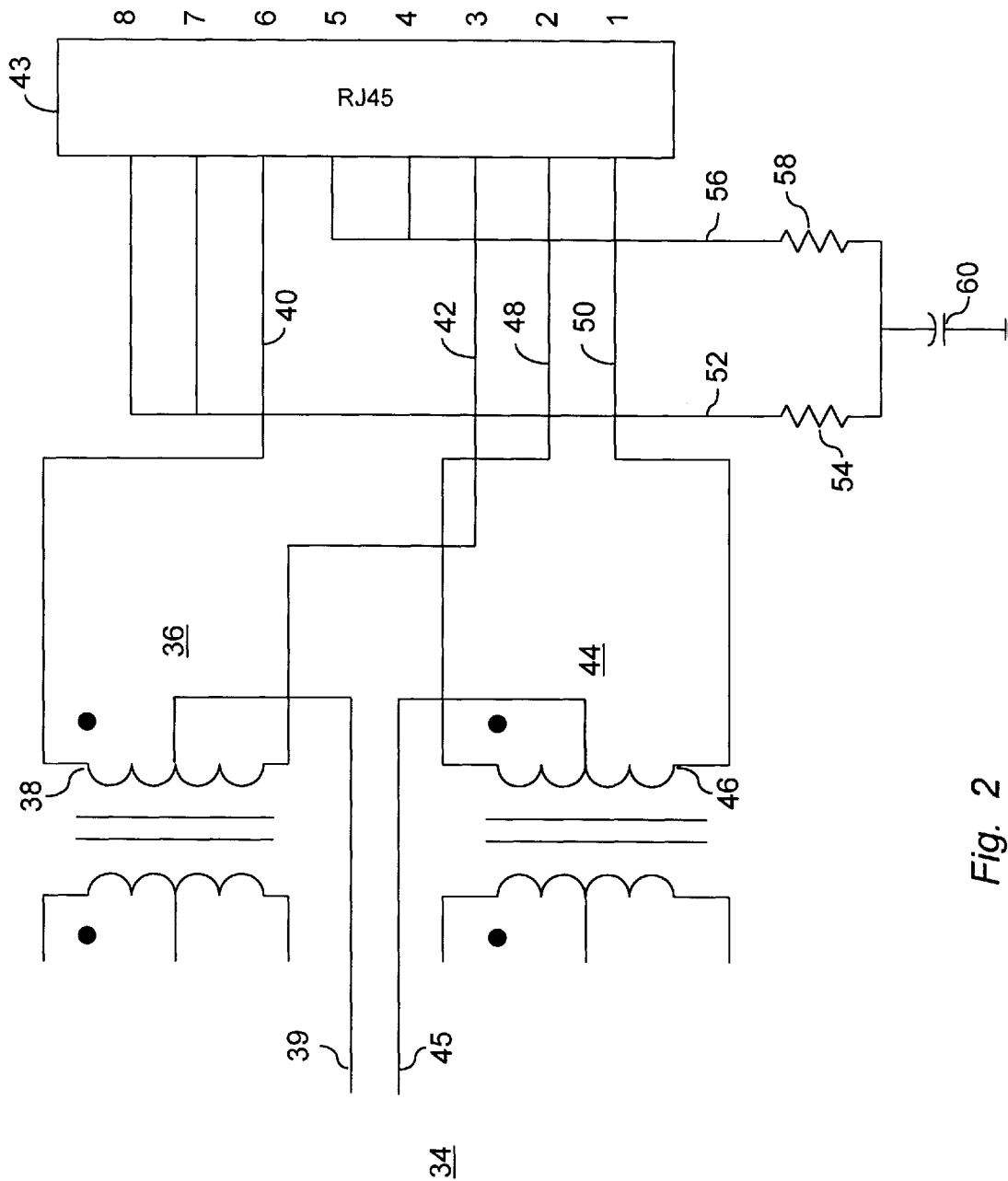


Fig. 2

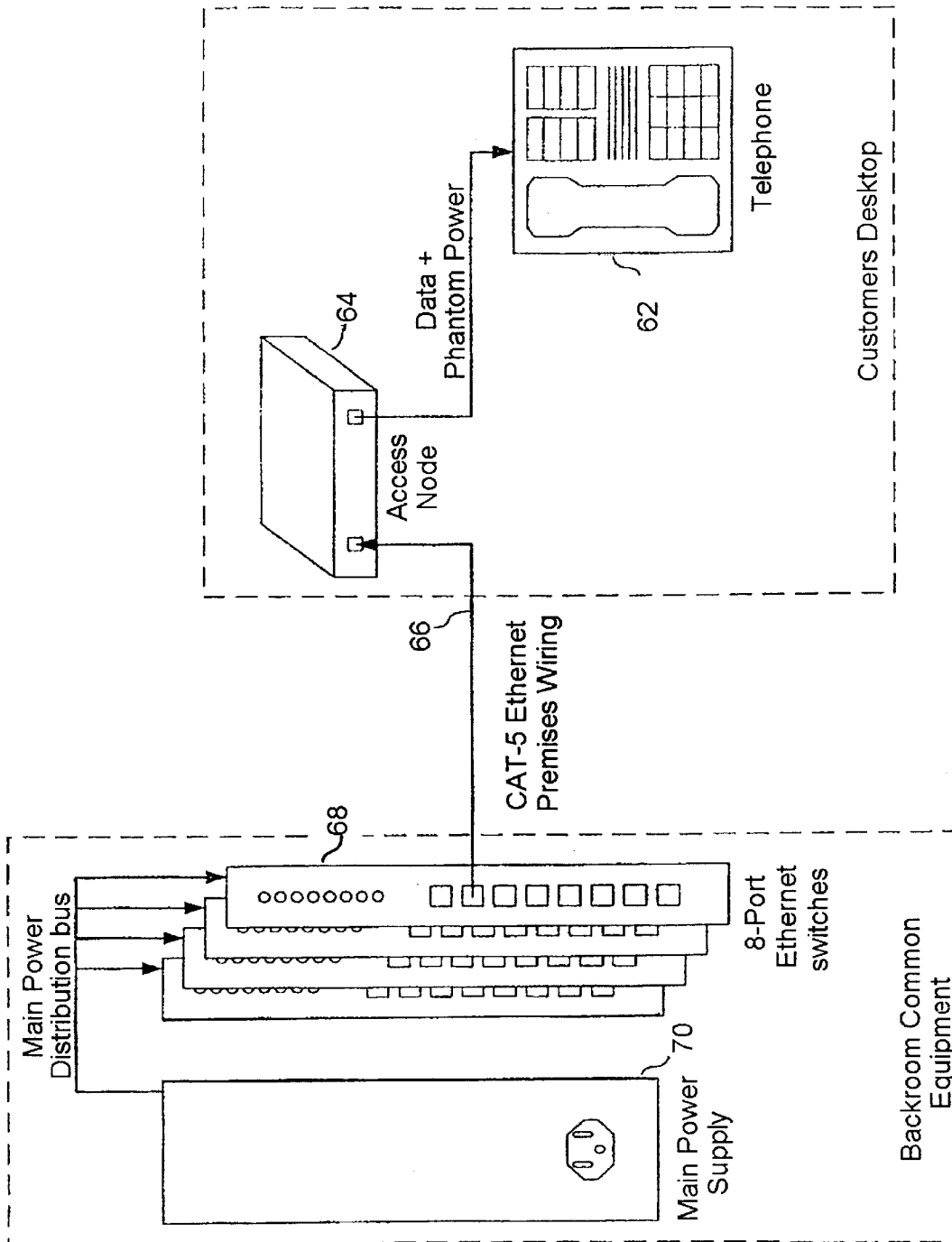


Fig. 3

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.