

EXHIBIT 1

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

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(45) **Date of Patent:** **Apr. 17, 2001**

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

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(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

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(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

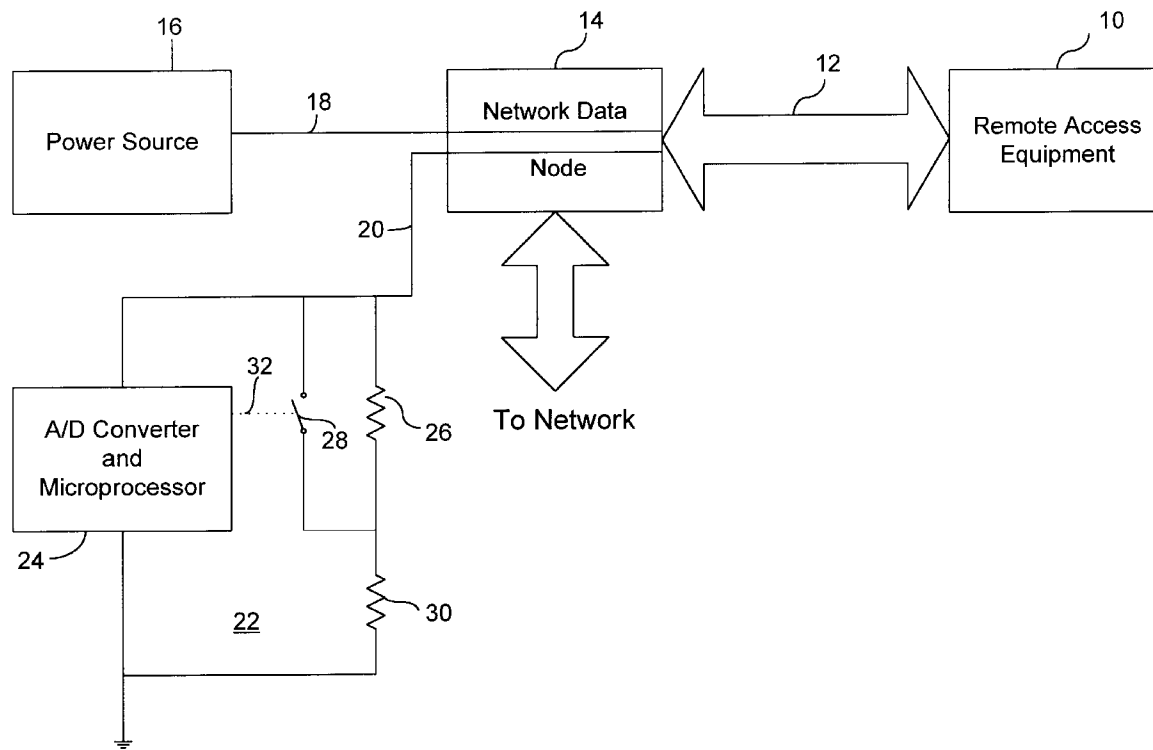
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(57) **ABSTRACT**

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



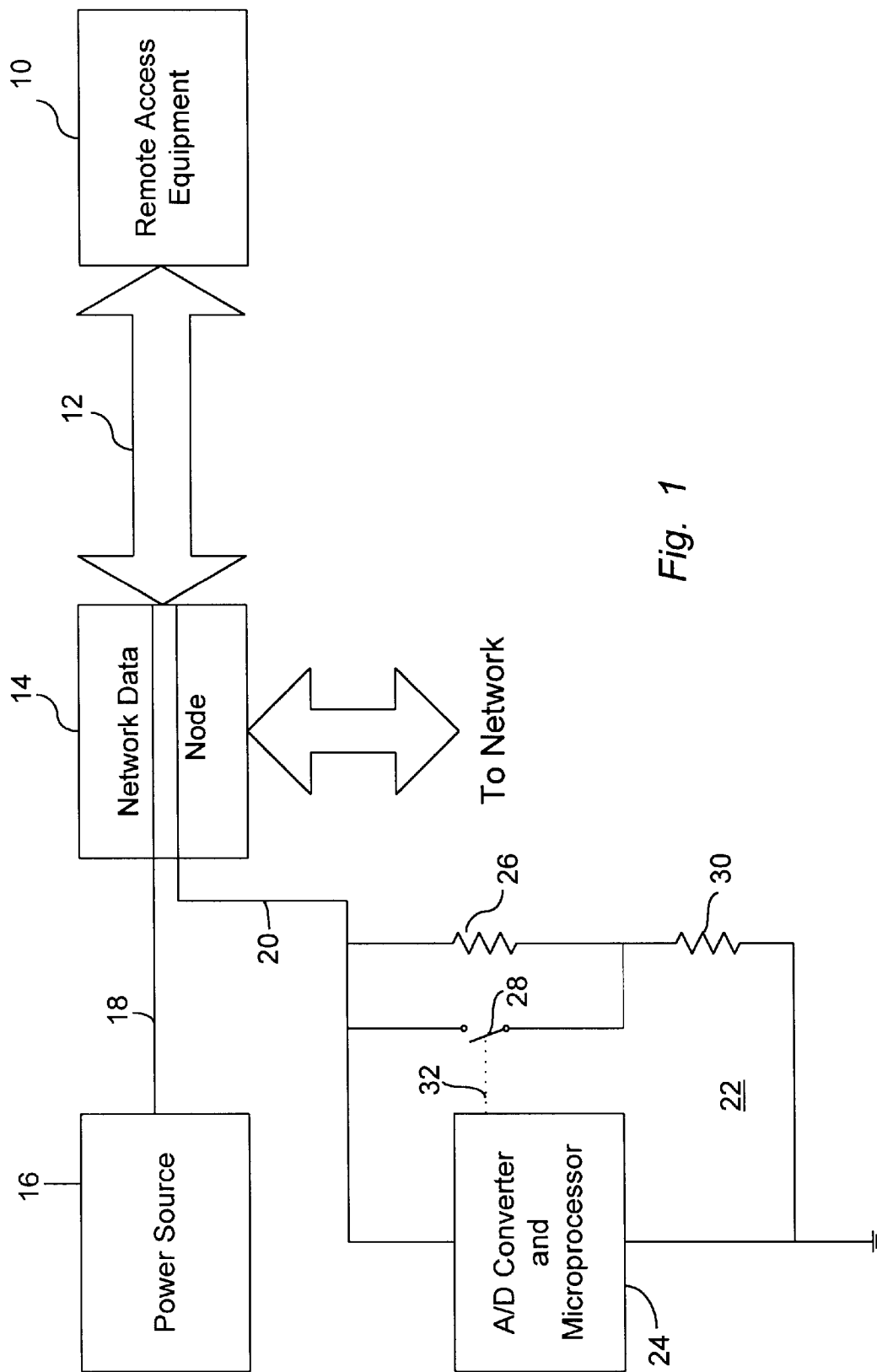


Fig. 1

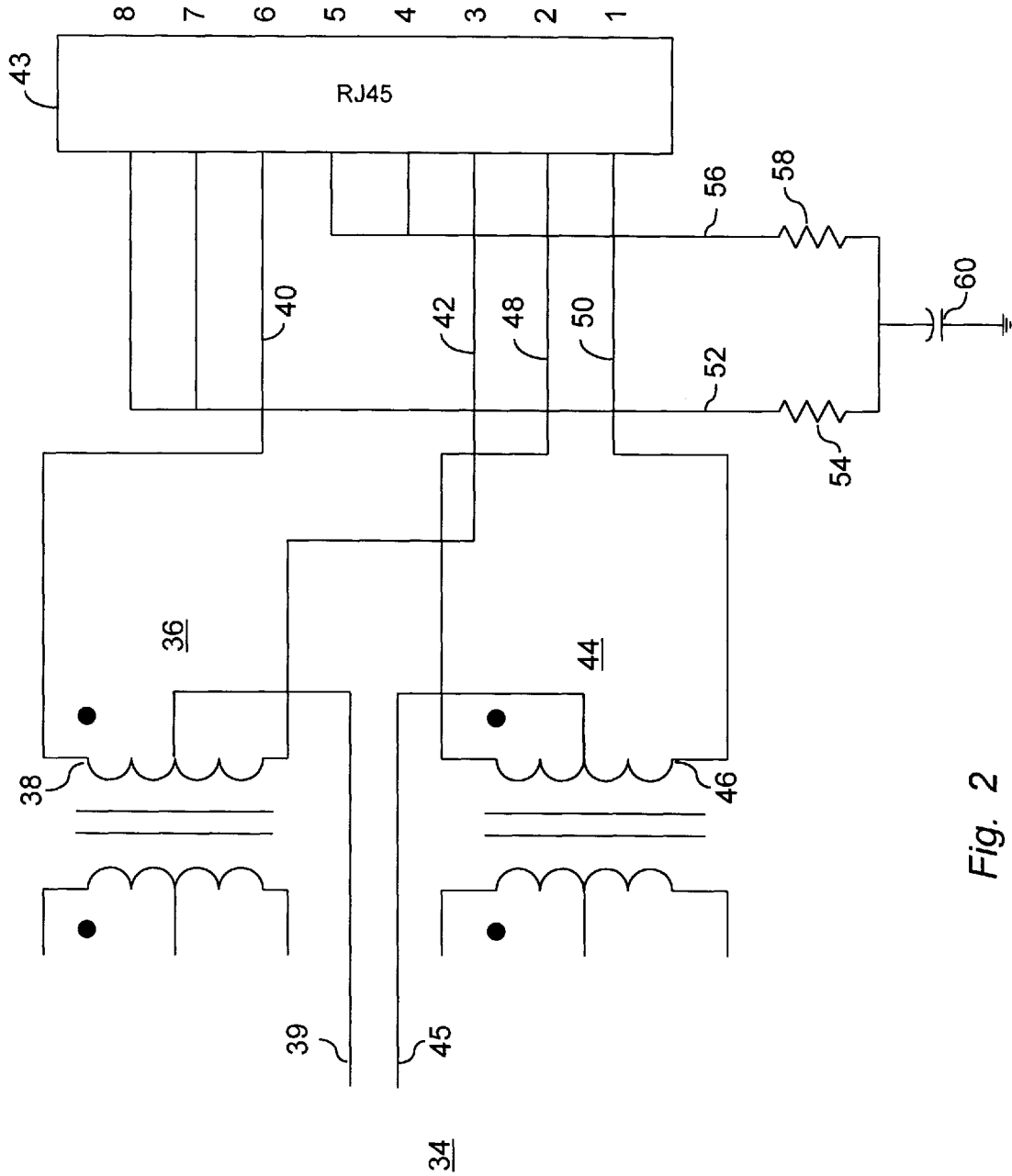


Fig. 2

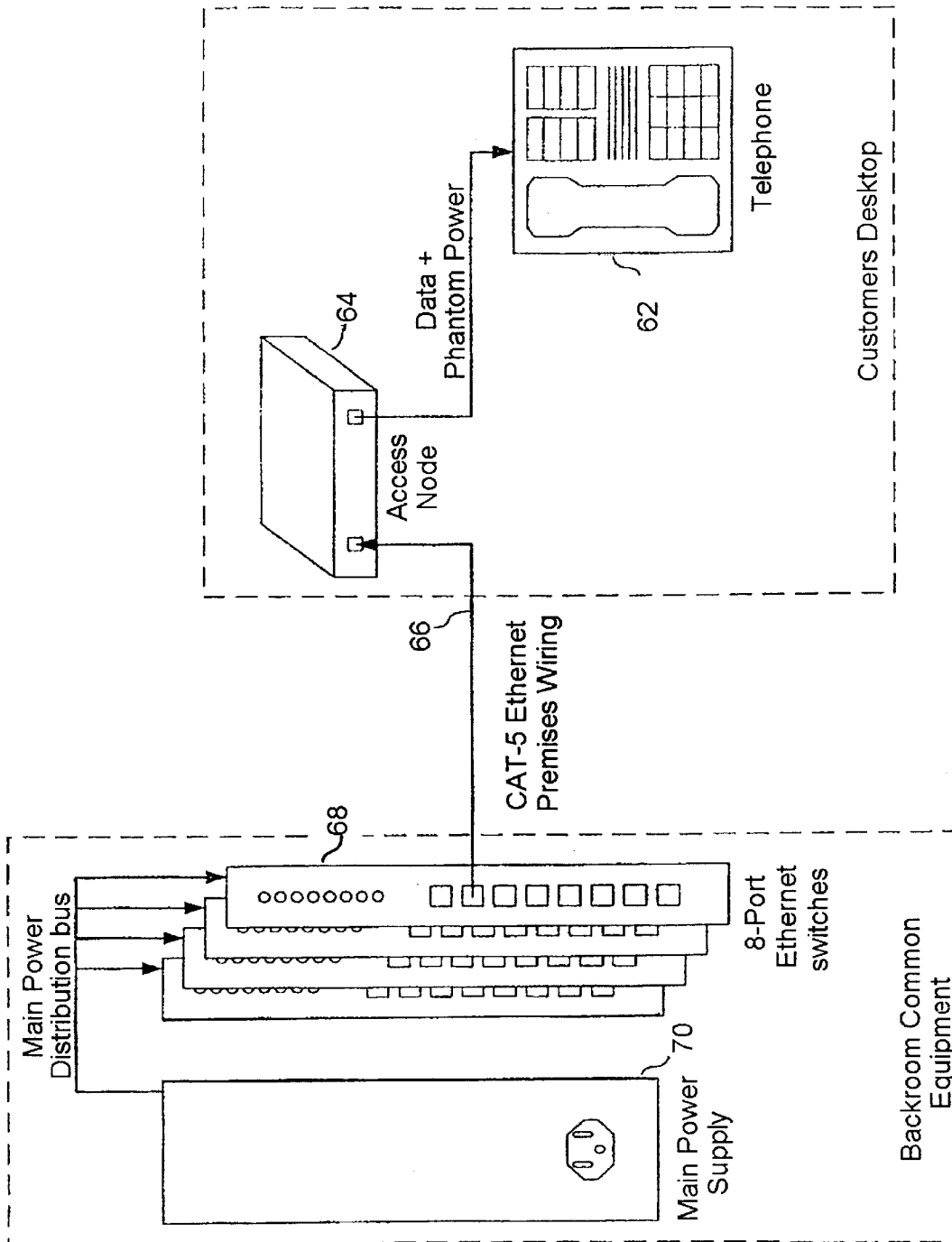


Fig. 3

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