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Docket Number 19723-36396

APR

03/10/99
JCS 41 U.S. PTO

PROVISIONAL APPLICATION FOR PATENT COVER SHEET (Small Entity)

This is a request for filing a PROVISIONAL APPLICATION FOR PATENT under 37 CFR 1.53 (c).

JCS 41 U.S. PTO
60/12368
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TITLE OF THE INVENTION (280 characters max)					
Apparatus and Method for Remotely Powering Access Equipment Over a 10/100 Switched Ethernet Network					
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ENCLOSED APPLICATION PARTS (check all that apply)					
<input checked="" type="checkbox"/> Specification	Number of Pages	6	<input checked="" type="checkbox"/> Small Entity Statement		
<input checked="" type="checkbox"/> Drawing(s)	Number of Sheets	3	<input type="checkbox"/> Other (specify)		
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Respectfully submitted,

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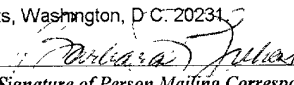
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**Apparatus and Method for Remotely Powering Access Equipment
Over a 10/100 Switched Ethernet Network**

This invention broadly relates to the powering of 10/100 Ethernet compatible
equipment. The invention more particularly relates to apparatus and methods for
5 automatically determining if remote equipment is capable of remote power feed and
if it is determined that the remote equipment is able to accept power remotely then
to provide power in a reliable non-intrusive way.

Background of the Invention

A variety of telecommunications equipment is remotely powered today.
10 Telephones and Network Repeater devices are examples of remotely powered
equipment. Obviously there are many advantages to remotely powering equipment,
however this technique has not migrated to data communications equipment for
several reasons. Data communications equipment has traditionally required high
power levels to operate which has made it prohibitive to implement. The widely
15 distributed nature as well as the use of shared media used in data networks has
also made remote power impractical.

The desire to add remotely powered devices to a data network is being
pushed by the convergence of voice and data technologies. The advent of IP
Telephony, Voice over IP and Voice over Packet technologies has brought
20 traditional telephony requirements into the data environment. It is not desirable to
have a phone powered by a local wall transformer. It is desirable to have a
centrally powered system that can be protected during a power outage.

It is therefore an object of the invention to provide methods and apparatus for reliably determining if a remote piece of equipment is capable of accepting remote power.

It is another object of this invention to provide methods and apparatus for delivering remote power to remote equipment over 10/100 switched Ethernet segments and maintain compliance with IEEE 802.3 standards.

Summary of the Invention

In accord with the objects of the invention an apparatus for remotely powering access equipment over a 10/100 switched Ethernet network comprises: 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 power to remote equipment over the same wire pairs that deliver the data signals; automatic detection of remote equipment being removed from the network.

Drawings

The invention will be more clearly understood by reference to the following description, taken in connection with the accompanying drawings, in which:

Fig. 1 is a simplified schematic diagram of the remote power automatic detection system of the present invention, shown in conjunction with a single unit of remote access equipment connected as part of an Ethernet local area network,

Fig. 2 is a simplified schematic drawing of a power feed configuration for supplying power to the remote access equipment on the local area network, and

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