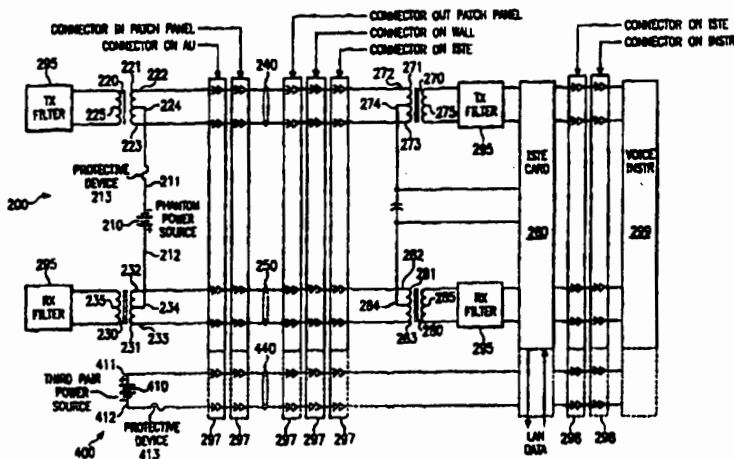




INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

<p>(51) International Patent Classification <sup>6</sup> : H04L 12/10, H04Q 11/04, H04M 19/08</p>	<p>A1</p>	<p>(11) International Publication Number: <b>WO 96/23377</b> (43) International Publication Date: 1 August 1996 (01.08.96)</p>
<p>(21) International Application Number: PCT/IB96/00223 (22) International Filing Date: 26 January 1996 (26.01.96) (30) Priority Data: 08/379,365 27 January 1995 (27.01.95) US (71) Applicant: INTECOM, INCORPORATED [US/US]; 5057 Keller Springs Road, Dallas, TX 75248 (US). (72) Inventors: HUNTER, Richard, K.; Apartment 804, 4815 Westgrove Road, Dallas, TX 75248 (US). PLATT, Richard, B.; 1111 Ashby Drive, Allen, TX 75002 (US). (74) Agent: HITT, David, H.; Hitt Chwang &amp; Gaines, P.C., Suite 225, 275 West Campbell Road, Richardson, TX 75080 (US).</p>		<p>(81) Designated States: AL, AM, AT, AU, AZ, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IS, JP, KE, KG, KP, KR, KZ, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, TJ, TM, TR, TT, UA, UG, UZ, VN, ARIPO patent (KE, LS, MW, SD, SZ, UG), Eurasian patent (AZ, BY, KG, KZ, RU, TJ, TM), European patent (AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG).</p> <p><b>Published</b> <i>With international search report. Before the expiration of the time limit for amending the claims and to be republished in the event of the receipt of amendments.</i></p>

(54) Title: MULTIMEDIA SYSTEM HAVING CENTRAL POWER SOURCE AND DISTRIBUTION SUBSYSTEM



(57) Abstract

A power subsystem and method for providing phantom power and third pair power via a computer network bus, the bus including first and second conductors. The phantom power subsystem comprises: (1) a power supply having a positive output and a negative output, the power supply adapted to provide power via the positive and negative outputs and (2) first and second transformers, each of the first and second transformers having a winding, each of the windings having a pair of end taps and a center tap, the first conductor coupled to the end taps of the winding of the first transformer to allow data communication therebetween, the second conductor coupled to the end taps of the winding of the second transformer to allow data communication therebetween, the positive and negative outputs of the power supply coupled to the center taps of the windings of the first and second transformers, respectively, to allow the power supply to transmit the power, via the first and second transformers and the first and second conductors, to equipment couplable to the first and second conductors.

BEST AVAILABLE COPY

**FOR THE PURPOSES OF INFORMATION ONLY**

Codes used to identify States party to the PCT on the front pages of pamphlets publishing international applications under the PCT.

AM	Armenia	GB	United Kingdom	MW	Malawi
AT	Austria	GE	Georgia	MX	Mexico
AU	Australia	GN	Guinea	NE	Niger
BB	Barbados	GR	Greece	NL	Netherlands
BE	Belgium	HU	Hungary	NO	Norway
BF	Burkina Faso	IE	Ireland	NZ	New Zealand
BG	Bulgaria	IT	Italy	PL	Poland
BJ	Benin	JP	Japan	PT	Portugal
BR	Brazil	KE	Kenya	RO	Romania
BY	Belarus	KG	Kyrgyzstan	RU	Russian Federation
CA	Canada	KP	Democratic People's Republic of Korea	SD	Sudan
CF	Central African Republic	KR	Republic of Korea	SE	Sweden
CG	Congo	KZ	Kazakhstan	SG	Singapore
CH	Switzerland	LI	Liechtenstein	SI	Slovenia
CI	Côte d'Ivoire	LK	Sri Lanka	SK	Slovakia
CM	Cameroon	LR	Liberia	SN	Senegal
CN	China	LT	Lithuania	SZ	Swaziland
CS	Czechoslovakia	LJ	Luxembourg	TD	Chad
CZ	Czech Republic	LV	Latvia	TG	Togo
DE	Germany	MC	Monaco	TJ	Tajikistan
DK	Denmark	MD	Republic of Moldova	TT	Trinidad and Tobago
EE	Estonia	MG	Madagascar	UA	Ukraine
ES	Spain	ML	Mali	UG	Uganda
FI	Finland	MN	Mongolia	US	United States of America
FR	France	MR	Mauritania	UZ	Uzbekistan
GA	Gabon			VN	Viet Nam

**MULTIMEDIA SYSTEM HAVING CENTRAL POWER SOURCE  
AND DISTRIBUTION SUBSYSTEM**

**TECHNICAL FIELD OF THE INVENTION**

The present invention is directed, in general, to  
5 multimedia systems and, more specifically, to a power  
subsystem for a multimedia subsystem and a method of  
providing phantom and third pair power therefor, the  
subsystem providing a central power source and distribution  
of power to equipment comprising the system.

10

**BACKGROUND OF THE INVENTION**

Currently, "Information superhighway" and "multimedia"  
are probably the most often spoken and least often  
understood aspects of a coming revolution in data  
communication. Although issues specific to an information  
15 superhighway are beyond the scope of the present  
discussion, interactive multimedia systems are very much  
within the present scope.

An interactive multimedia system is broadly defined as  
a system capable of processing, storing, communicating and  
20 coordinating data pertaining to visual information, aural

information and other information. Visual information is generally divided into still picture or graphics and full motion video or animation categories. In the vernacular of those involved in multimedia, such visual information is 5 generically referred to as "video." Aural information is generally divided into speech and non-speech categories and is generically referred to as "voice." "Other information" is directed primarily to computer data, often organized in files and records, and perhaps constituting 10 textual and graphical data. Such computer data are generally referred to as "data."

To date, multimedia has, for the most part, been limited to stand-alone computer systems or computer systems linked together in a local area network ("LAN"). While 15 such isolated systems have proven popular and entertaining, the true value of multimedia will become apparent only when multimedia-capable wide area networks ("WANs") and protocol systems are developed, standardized and installed that permit truly interactive multimedia. Such multimedia 20 systems will allow long distance communication of useful quantities of coordinated voice, video and data, providing, in effect, a multimedia extension to the voice-only services of the ubiquitous telephone network.

Defining the structure and operation of an interactive 25 multimedia system is a critical first step in the development of such system. Accordingly, before entering into a discussion herein of more specific design issues, it is important to discuss more general questions that need to be resolved concerning design objectives of the system as

a whole and some generally agreed-upon answers and specifications.

Interactive multimedia may be thought of as an electronic approximation of the paradigm of interactive group discussion. It involves the interactive exchange of voice, video and data between two or more people through an electronic medium in real time. Because of its interactive and real-time nature, there are some stringent requirements and required services not normally associated with multimedia retrieval systems. Some of the more obvious examples of those requirements and services include latency (transmission delay), conferencing, availability ("up-time") and WAN interoperability.

The evolution of existing private branch exchange ("PBX") and LAN topologies towards a composite interactive multimedia system based upon client/server architectures and isochronous networks is a natural trend. However, to merge the disparate mediums of voice, video and data successfully into a cohesive network requires that three fundamental integration issues be defined and resolved. The first of the fundamental integration issues is quality of service ("QoS"). QoS is defined as the effective communication bandwidth, services and media quality coupling of separate equipment or "terminals" together and the availability ("up-time") of the same. QoS parameters are divided into four groups: 1) terminal QoS, 2) network QoS, 3) system QoS, and 4) availability requirements. Thus, QoS parameters must be defined for both terminal equipment ("TE") and network equipment ("NE") governing the

# 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.